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POLLUTION OF THE INTERSTATE WATERS OF LONG ISLAND SOUND AND ITS TRIBUTARIES - CONNECTICUT-NEW YORK. PROCEEDINGS OF CONFERENCE HELD AT NEW HAVEN, CONNECTICUT ON APRIL 13-14, 1971. VOLUME 2

Environmental Protection Agency
Washington, D. C.

1971

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PB 230 528

PROCEEDINGS: POLLUTION OF THE INTERSTATE WATERS OF LONG ISLAND SOUND AND ITS TRIBUTARIES

CONNECTICUT-NEW YORK-VOL. 2

April 13-14, 1971
New Haven, Connecticut

1.

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CONFERENCE

A Conference in the Matter of Pollution of the Interstate Waters of Long Island Sound and its Tributaries in the States of Connecticut and New York reconvened, pursuant to recess, at 9:30 a.m., Wednesday, April 14, 1971, at the New Haven Motor Inn, New Haven, Connecticut.

- - -

MR. STEIN: Let's reconvene.

I would like to call on Mr. Curry to see if Connecticut has completed its presentation.

Mr. Curry.

MR. CURRY: Mr. Chairman, we do have a few more people from Connecticut who would like to speak, but I think, in all fairness, Connecticut has taken an equitable amount of time, so at this time I would like to pass to New York with the understanding that after New York is finished anybody from Connecticut who has something else to say will be provided time.

MR. STEIN: Yes.

Mr. Metzler.

MR. METZLER: Thank you, Mr. Stein.

Then New York will be ready to present as its first witness Mr. Eugene Seebald, who is Assistant Director for the Division of Pure Waters, speaking for Commissioner Diamond of the Department of Environmental Conservation.

STATEMENT OF
EUGENE SEEBALD
ASSISTANT DIRECTOR, DIVISION OF PURE WATERS
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MR. SEEBALD: Thank you, Mr. Chairman, conferees.

I would like to offer for the record the statement to the Long Island Sound enforcement conference on behalf of New York State Department of Environmental Conservation and request it be included as if read.

MR. STEIN: Yes, that will be included as if read.

MR. SEEBALD: New York in its statement attempted to amplify and edit the factual material reported in the summary report presented for this conference, and to comment point by point on differences contained in the Federal report would be repetitive. So, therefore, I would just pledge that New York will request that the material included in the official statement be reconciled with the Federal report and that the Federal and State staffs sit down and reconcile any questions they may have subsequent to the reconciliation of the two reports.

MR. STEIN: Is that agreeable with you?

MR. KLASHMAN: Yes. Thank you very much.

MR. STEIN: It will be done.

MR. SEEBALD: I am Eugene F. Seebald, Associate Director, Division of Pure Waters, New York State Department of Environmental Conservation.

New York generally concurs with the documentation of water quality degradation described in the report by the Northeast Regional Water Quality Office of the Environmental Protection Agency entitled "Report on the Water Quality of Long Island Sound - March 1971."

New York State's wastewater treatment plant construction schedule will provide the means of improving water quality such that the Federally approved New York State water quality standards will be met and intended best usages of the State's water resources restored:

1. By intercepting raw sewage, stormwater overflows, and industrial waste.

2. By upgraded treatment and expanded capacity to substantially remove organic oxygen-consuming wastes and infectious agents.

Operational surveillance of present municipal treatment plants, whether primary or secondary, indicates they are being operated to the full extent of their present capabilities and are receiving State reimbursement of one-third of their annual operation and maintenance expenses.

A nutrient policy is under development on which New York State will base its program for protecting valuable water resources from accelerated eutrophication.

STATUS OF NEW YORK STATE PROGRAMS IN THE ENFORCEMENT CONFERENCE AREA

The following resume will describe the status of New York State's water pollution control program as it affects the water quality of Long Island Sound and its embayments. Only those discharges having a potentially significant effect on the Long Island Sound enforcement area are presented.

Enforcement

Of the 27 municipal, institutional, and industrial wastewater sources in the New York State portion of the conference area, only six municipalities have been cited as polluters. Four of these have been placed under Commissioner's Orders, one has been noticed for a hearing and the litigation is about to be concluded, and one is proceeding under a voluntary supervised schedule. The status of these and other wastewater discharges is provided in the summary status table appended.

Of the remaining 21 identified wastewater sources, four industrial sources have either installed treatment facilities, connected to municipal systems, or ceased discharge of industrial process wastes such that they no longer threaten water quality standards. The remaining industrial source is an existing fossil fuel powerplant which has not been cited as in contravention of water quality standards.

These water quality standards referred to are the standards incidental to the classification of the waters of the State and not the federally approved water quality standards. I believe semantics have to be differentiated at this point.

Although the remaining 16 municipal wastewater sources could not be cited for contravention of water quality standards to which I previously referred, six have voluntarily completed secondary treatment plants and the remainder have reached preliminary or final design for improved or expanded secondary treatment in accordance with the policy requirements of New York's implementation plan for protecting federally approved State water quality standards. The single exception is the city of Mamaroneck, whose project for upgrading to secondary treatment is in the predesign phase.

Construction Grants

The 20 municipal wastewater sources listed in the attached summary table have identified construction grants projects approximating $62.1 million of eligible project costs for water pollution control facilities on the Long Island Sound Basin in Nassau, Suffolk, and Westchester Counties. State grants totaling $32.4 million are expected to be committed to projects initiating construction by March 31, 1972, including prefinancing of the Federal share where necessary. These projects will provide a total design capacity of 68.8 mgd, including 23.0 mgd for projects that are already completed, in operation, or under construction.

This program, where the majority of municipalities have initiated voluntary action, will result in improved and enhanced water quality of Long Island Sound and its embayments. This construction program is in compliance with the New York State funded $1,365,000 county comprehensive sewage planning effort.

Incentive Programs

The emphasis currently placed on enforcement and construction is supplemented by continuing efforts to concurrently obtain maximum performance from existing waste treatment facilities. As an incentive towards this objective, New York State communities may receive one-third reimbursement of their annual audited O & M expenses. Eligibility requirements include commitment by the governing body to comply with a specified time schedule for remedial action when necessary.

Since 1965 when the program was funded, O & M grants totaling over $5.9 million have been granted to 30 communities in the Long Island Sound Basin counties of Westchester, Nassau, and Suffolk. These plants serve an estimated 957,600 people.

Under the Pure Waters Program, industry is offered the opportunity to build its own wastewater treatment plants and receive tax benefits. The tax relief incentive cost of industry's option to take a net operating deduction on the State income tax return in the year expenditures are made and exemption of the treatment facilities from property taxes and special levies. Industries constructing their own treatment facilities must submit engineering plans to DEC for review and approval. When construction is completed, the facility is inspected. If approved, a tax exemption certificate is issued. Few industries in the Long Island Sound enforcement conference area have availed themselves of this opportunity, apparently choosing to deliver process wastes to municipal systems.

Surveillance

The New York State Department of Environmental Conservation has not established any active water quality surveillance stations in the drainage system covered by this enforcement conference.

Eugene Seebald

Water quality studies are conducted by the Bureau of Environmental Control in the Division of Marine & Coastal Resources, DEC. These surveys cover all existing or potential shellfish waters within the State marine region. Reports are prepared on specific areas presenting the data gathered during the course of the water quality studies. Sampling stations are designed within each area with the following parameters being measured at each station: stage of tide, salinity, water temperature, coliform MPN/100 ml, and fecal coliform MPN/100 ml. In addition, the air temperature and the presence or appearance of precipitation during the past 24 hours is noted.

A complete review of each area (i.e. Westchester Shores Report) is prepared once within a ten year period. A reappraisal of each area containing a brief narrative and data gathered within the time period is prepared at two year intervals for each area.

The areas surveyed within the Long Island Sound complex would include:

	No. of Sampling Stations	Date of Most Recent Report
Westchester Shore	34	1969-70
Manhasset Bay	21	Data on File
Hempstead Harbor	23	Data on File
Oyster Bay Complex	40	1969-70
Huntington Bay Complex	53	1967
Smithtown Bay	18	1969
Stony Brook Harbor	14	1969
Port Jefferson Harbor Complex	56	1969
Mattituck Inlet	10	1969
Long Is. Sound Waters Matinicock Pt.-Orient	60	Data on File
Fishers Island	24	1968

Long Island Sound
Coliform Trends - West to East

Location	Median Coliform MPN/100 ml.	Coliform Range MPN/100 ml.
Off Port Chester	175	23-1610
Off Mamaroneck	28	/2-350
Off New Rochelle	33	11-1610+
Hempstead Harbor	23	23-540
Oyster Bay	23	/2-130
Huntington Bay	/2.3	/2.3-43
Smithtown Bay	/2	/2-8
Off Port Jefferson Harbor	/2	/2-11
Off Mattituck	23	/2-240
Off Rocky Point	/2	/2-4
Plum Gut	/2	/2-9

N.Y.S. Shellfish Resources

The following is a table showing the total acreage of shellfish-producing bottom in and tributary to Long Island Sound. Also shown is the acreage (and percentage) restricted to shellfishing because of pollution. The entire area is subdivided according to natural boundaries specified.

Bay Area	Total Acres	Acres Restricted	%
Westchester	15,520	15,520	100
Manhasset Bay	2,725	2,725	100
Hempstead Harbor	3,465	1,385	40
Desoris Pond	105	-	-
Oyster Bay-Cold Spring Harbor Complex	6,365	270	4.2
Huntington-Northport Complex	6,130	325	5.3
Nissequogue River	555	555	100
Smithtown Bay	22,300	500	2.2
Stony Brook Harbor	855	-	0
Port Jefferson Harbor Complex	1,550	815	53
Mt. Sinai Harbor	455	-	0
Wading River	50	-	0
Mattituck Inlet	125	5	4.0
Fisher Island Sound	7,990	910	11
Long Island Sound			
Prospect Pt. to Oldfield Pt.	88,300	20,950	24
Oldfield Pt. to Mattituck Inlet	188,000	5,170	2.8
Mattituck Inlet to Fishers Island	121,000	300	0.25
Total	465,540	49,430	10.6

In the 11-year period, 1960-1970, the average annual value of shellfish (exclusive of lobsters) harvested from Long Island Sound by New York fishermen declined from $1.05 million to $556,000. At the same time, there was a reduction in acreage of shellfish grounds open to the harvest of shellfish. These closures were made because of pollution of the waters that rendered the shellfish unsafe for human food.

Some of the loss of revenue from this shellfish resource in the sound was the result of a natural decline in abundance and a decline in the fishing effort of the industry. However, it is estimated that the annual loss in revenue caused by the closing of the shellfish grounds amounted to about $400,000.

Recent water quality surveys conducted by the Bureau of Environmental Control have documented that improved water quality affecting some 5,000 acres of presently closed shellfish beds off Westchester County shore could be reopened.

New York's commercial lobster fishery has enjoyed phenomenal success over the past 15 years. In 1954, total New York lobster landings amounted to 379,100 pounds worth $144,800 at the dock. In that same year, the catch from Long Island Sound amounted to 28,700 pounds worth $10,900. The catch increased, and by 1969, 1.42 million pounds worth $1.47 million were landed by the State's commercial fishermen.

Landings from Long Island Sound in 1969 amounted to 266,900 pounds worth $268,000 at the dock.

The increase in lobster landings is believed to be the result of a real increase in absolute abundance of the species brought about by regional changes in water temperature. Average coastal ocean water temperatures in the Northeast have declined from 10 degrees C in 1954 to 7.2 degrees C in 1967. (No later temperature data are available.) Studies in Maine have shown a decline in lobster abundance (and landings) with a southward shift in the range of the species. Lobsters apparently found the temperature regime in New York's waters to be more to their "liking" than that in Maine's waters.

These data indicate that lobsters, which are scavengerous shellfish, are more influenced by temperature than moderately polluted waters. This is further substantiated by an apparent increase in the recreational lobster landings in the western end of Long Island Sound in waters influenced by the East River.

Boat Pollution Control

Section 33-C of the New York State Navigation Law sets forth the prohibitions and requirements regarding liquid and solid waste discharged from watercraft. This law, effective March 1, 1970, empowers the Department of

Environmental Conservation to promulgate boat pollution control rules, regulations, and standards. Rules and regulations have been developed which identify the marine pollution control devices subject to approval, establishes minimum safety standards and requirements for approval of the devices, and provides for retesting of devices as required by the State. Enforcement responsibilities of this law are assigned to the Division of Marine & Recreational Vehicles in the New York State Office of Parks and Recreation.

Several effluent standards have been developed for all sewage passed overboard from watercraft:

1. Removal of all readily visible floating and settleable solids.
2. Suspended solids less than or equal to 50 mg/l.
3. 5-day BOD and COD less than or equal to 50 mg/l.
4. A coliform median (MPN) in any number of samples must be less than or equal to 50/100 ml.

As a result of these regulations and requirements, private marinas have constructed pumpout facilities to service pleasure craft and assist them in complying with the New York State law. As of January 1, 1971, the following private marinas provide pumpout services in the Long Island Sound enforcement area:

Eugene Seebald

Glen Cove Yacht Service
Glen Cove, New York

Peterson's Shipyard
451 Main Street
Port Washington, New York

Minneford Boat Yard
City Island, New York

North Fork Shipyard
Main Street
New Suffolk, New York

South County Shores
East Patchogue, New York

Bulk Storage, Transportation & Handling of Hazardous Substances

Rules and regulations are being developed under the authority of the 1970 legislation which established the new Department of Environmental Conservation. The program will be administered by the newly established Bureau of Bulk Storage which will emphasize preventative measures to control accidental releases of oil and hazardous substances from the handling, transportation, and storage of such materials.

The preventive measures and equipment to be required by facilities involved in liquid handling and shipping are based on needs as reflected in a record of spills and releases of liquids to surface waters in this State over the past four years.

Assembly Bill 5984-A, which established a State policy for the protection of the environment, included under Article 2, Section 14, a provision to "prevent pollution through the regulation of storage, handling and transport of solids, liquids and gases which may cause or contribute to its pollution."

Assembly Bill 2955-A, also passed during the 1970 legislature, was an act to amend the Public Health Law in relation to storage of liquids likely to cause pollution of the waters of the State. The bill authorized the Department to "make, amend and repeal rules and regulations for the storage of liquids likely to pollute the waters of the State."

Oil terminals in this conference area are indicated in Figure 1 attached. Only the few major ones have inventoried control equipment, such as "booms," for coping with accidental spills. Pressure will be brought to bear under the above legislation to secure proper preventative measures such as diking and other containment methods.

Nutrients

The Department of Environmental Conservation is developing a policy regarding control of nutrients in New York State. Phosphorus removal requirements have been adopted for the Great Lakes Basin as a result of previous enforcement conferences, but have not been extended Statewide, and will be so extended at the pleasure of the Commissioner.

Initial investigations into the nutrient relationships in marine waters indicate that nitrogen is the critical factor limiting algal growth and eutrophication in coastal marine waters. Presently, these waters are generally low in both phosphorus and nitrogen except in the western portion near New York City where these nutrient concentrations are above levels conducive to heavy algal growth. Generally, there is surplus phosphorus available due to the low nitrogen-to-phosphorus ratio in terrigenous contributions. Furthermore, nitrogen fixation from the atmosphere is a very minor factor because the responsible algae and bacteria which abound in freshwaters are not indigenous to marine waters.

However, it remains to be seen whether or not increased productivity would be beneficial to the finfish and shellfish resources in Long Island Sound before embarking on a course of action regarding nutrient or, in particular, nitrogen removal from point wastewater sources. Meanwhile, New York State is proceeding on the basis of requiring secondary treatment and disinfection with discharge of treated effluents relocated from harbors and embayments into the open waters of Long Island Sound.

Thermal Discharges

Criteria governing thermal discharges into waters of New York State have been developed and are on file with the

Secretary of State. Current negotiations are under way with EPA to expedite acceptance of these criteria as amendments to those currently on file in New York State's federally approved water quality standards. Essentially, all new proposed or modified existing thermal discharges must comply with the requirements imposed by these criteria.

It has been determined that the criteria developed to protect coastal waters will apply to all waters of Long Island Sound in New York State. Specifically, the criteria require that the water temperature at the surface of coastal waters shall not be raised more than 4 degrees F over the monthly means of maximum daily temperatures from October through June, nor more than 1.5 degrees F from July through September with the exception that this temperature may be exceeded within a radius of 300 feet or equivalent area from the point of discharge. (It is recognized that a radius of 300 feet or equivalent area may be too liberal or too restrictive and that a lesser or a greater area may be required or permitted under the procedures set forth in "Additional Limitations or Modifications.")

Thermal discharges existing prior to the adoption of these criteria are affected only if they contemplate expansion or other modifications to the quantity or character of their discharge. Enforcement action against existing discharges must be based on Department documentation of contravention of standards which, with respect to temperature, state "none alone or in combination with other substances or wastes in sufficient amounts or at such temperature as to be injurious to fish life or impair the waters for any other best usage. . ."

In the administration of these criteria governing thermal discharges, it is recognized that the capacity of the receiving water as a heat sink may be utilized within the limitations imposed by the criteria and augmented where necessary by onshore reductions in heat load.

Pesticides

The New York State Department of Environmental Conservation has imposed stringent restrictions on pesticides effective January 1, 1971. These include a complete ban on the use of DDT and nine other persistent pesticides and restricted use of another 62 pesticides. Pesticides completely banned include Bandane, BHC, DDD, DDT, Endrin, mercury compounds, selenites,and selenates, sodium fluoroacetate, strobane, and Toxaphene.

These regulations, implementing legislation enacted last year, were developed following consultation with the State Department of Agriculture and Markets, the College of Agriculture, and the Geneva Experiment Station to insure availability of less harmful chemicals and after a series of public hearings held throughout the State last summer. According to the regulations, supplies of the 62 restricted pesticides on hand in the State as of December 31, 1970 may be used by any person within the State until December 31, 1971, after which new supplies may be bought only by holders of "purchase permits" issued by the Department. The plan prohibits importing pesticides into the State without a commercial permit while allowing one year to gradually deplete the inventory of restricted pesticides.

I will not read the individual summaries of the status of the various dischargers listed in the Federal report. However, I would point out that schedules that were referred to yesterday for implementation have been included as a part of the summary of the status of individual polluters where it is appropriate.

I would like to also point out that in the case of the Long Island Lighting Company Northport plant on page 13 there is an error and the domestic wastes are discharged not to Long Island Sound after treatment but to a septic tank leaching field on shore.

(The status summaries referred to follow:)

STATUS OF WASTEWATER SOURCES IN NASSAU AND SUFFOLK COUNTY

Greenport (V)

The present treatment plant serving the Village consists of two Imhoff tanks followed by chlorination. Design flow is 0.5 mgd and actual flow is 0.3 mgd. An engineering report has been approved and review of final plans has been completed. The proposed plant will provide secondary treatment by aerated lagoons, secondary settling and chlorination before discharge through existing outfall. Design flow is 0.5 mgd. The Village is under the following voluntary schedule:

Engineering Report	June 1, 1970
Final Plans	October 1, 1970
Advertise for Bids	April 10, 1971
Start Construction	July 1, 1971
End Construction	July 1, 1972

Final plans were submitted on November 30, 1970.

Port Jefferson Sewer District

The present treatment plant serving the district provides primary treatment with chlorination before discharge to Port Jefferson Harbor. Legal action has been initiated to enforce compliance with the following schedule for upgrading treatment:

Submit Engineering Report	June 1, 1971
Final Plans	October 1, 1971
Start Construction	March 31, 1972
End Construction	October 1, 1973

Kings Park State Hospital

The plant serving this facility provides secondary treatment of the activated sludge type with chlorination and discharge 4,000 feet out into Long Island Sound. Negotiations are presently underway to transfer the treatment facility over to the Town of Smithtown. This could then serve as the hub of District #7 of the Comprehensive Study for the Five Western Towns of Suffolk County.

Northport (V)

The present plant consists of an Imhoff tank, chlorination and discharge to Northport Harbor. Present flow is .160 mgd. The Village stipulated to a Commissioner's Order which contained the following schedule:

Submit Final Plans	September 15, 1970
Start Construction	April 1, 1971
Complete Construction	April 1, 1972

Final plans and specifications were submitted in August of 1970 and were approved in November 1970. Federal Water Quality Administration grant review has just recently been completed and the authority to advertise for bids has been given.

The proposed 0.25 mgd plant will provide secondary treatment by the extended aeration process and discharge will be to Northport Harbor. In addition, this plant will serve the newly created Centerport Sewer District as well as the existing Northport system. The collection and treatment of wastes from the Centerport District will alleviate problems that have been occuring in the Centerport Mill Pond. Completion of construction of the proposed plant is expected in 1972.

Huntington Sewer District

This plant provides secondary treatment by the trickling filter process for approximately 2.0 mgd with discharge to Huntington Harbor. Operation of the plant is good with efficiencies in the 85-95 percent range for BOD and suspended solids.

Quantitative Biological Laboratory

This plant provides secondary treatment followed by a sand filter and chlorination before discharge to Cold Spring Harbor. The daily flow is approximately 0.01 mgd.

Oyster Bay Sewer District

This plant provides secondary treatment of the trickling filter type with chlorination before discharge into Oyster Bay Harbor. Operation of the plant is good with removal efficiencies of 80-85 percent for BOD and suspended solids.

Glen Cove - Morgan Estates

This plant provides primary treatment for a small area near Glen Cove. It will be abandoned when the treatment plant serving the City of Glen Cove is expanded. Final plans for the proposed pump station and force main have been approved and are under review by FWQA. Construction should begin in 1971.

Glen Cove (C)

The present plant provides secondary treatment by the trickling filter process followed by chlorination and discharge to Glen Cove Creek. Present daily flow is approximately 4.5 mgd which hydraulically overloads the plant.

An engineering report covering expansion of the facility has been submitted and comments were sent to the engineer. Construction for this project should begin in 1971.

Long Island Lighting Company

1. Port Jefferson Plant - Domestic wastes are discharged to municipal sewer system. Cooling water is discharged to Port Jefferson Harbor.

2. Northport - Domestic wastes are discharged to Long Island Sound after treatment. Cooling waters are discharged to Long Island Sound after going through a cooling basin.

3. Glenwood Landing - Domestic wastes are discharged to Hempstead Harbor after treatment in a septic tank followed by chlorination. Cooling water is discharged to Hempstead Harbor.

Roslyn (V)

This plant provides secondary treatment for 0.5 mgd by the trickling filter process. Discharge is to Hempstead Harbor. Operation is poor due to hydraulic overloading caused by an industry connected to the collection system. Steps are being taken to eliminate this problem.

Port Washington S.D.

This plant provides secondary treatment for 2.7 mgd by the trickling filter process. Discharge is to Manhasset Bay. Operation is good with removal efficiencies in 80-90% range for BOD and suspended solids. An engineering report has recently been submitted to cover expansion of the plant to serve the surrounding area.

Great Neck Sewer District

This plant provides secondary treatment for 2.7 mgd by the trickling filter process. Discharge is to Manhasset Bay. Operation is good with removal efficiencies in 85-90% range for BOD and suspended solids. An engineering report covering the expansion of the plant to serve outlying areas was approved in July 1970 and final plans are to be submitted shortly.

Great Neck (V)

This plant provides secondary treatment for 1.3 mgd by the trickling filter process. Discharge is to Manhasset Bay. Operation is good with removal efficiencies of 85-90% for BOD and suspended solids. Improvements have been made recently to the treatment facilities.

Belgrave Sewer District

This plant provides secondary treatment of 1.8 mgd by the trickling filter process. Discharge is to Little Neck Bay. Operation is good with removal efficiencies of 85-90% for BOD and suspended solids. Final plans for additions and alterations to the existing facilities have been recently submitted.

STATUS OF WASTEWATER SOURCES IN WESTCHESTER COUNTY

Blind Brook Sewage Treatment Plant

This plant is currently under order to expand its facilities to secondary treatment. The Commissioner's Order was issued in October of 1968. Engineering report and an addendum to the report has been submitted to Albany and is under review. The consultant has been requested to prepare an analysis on the feasibility of the plant proposed for pumping the sludge from Blind Brook to Port Chester for treatment. Proposed treatment of sludge is to include thermal conditioning and thermal oxidation. Completion is planned for 1973-74.

Beech Nut-Life Savers

This firm has recently been connected into the sanitary system of Port Chester. There is pretreatment which included pH adjustment and chlorination.

Emco Porcelain Co., Inc.

It has been alledged that this plant has been responsible for a periodic discharge of paint wastes containing zinc. This office has no proof of pollution but federal inspectors have observed and sampled a discharge. As a result of this sampling, Federal Attorneys plan to indict the firm. The firm has been primarily engaged in the production of ammunition boxes for .30 and .50 caliber ammunition. Recent information is that the plant producing these boxes will close. The plant has essentially been shut down.

Krystinel

This company has in the past discharged iron oxide to the Byram River. The company has constructed treatment facilities which remove the iron oxide from its discharge. As the matter now stands, the plant is operating an unapproved treatment facility and is discharging effluent without a permit. Although the plant is doing a good job, it is technically operating in violation of the law. The situation remains unresolved.

Mamaroneck Sewage Treatment Plant

At present this plant is a primary plant and the intention is to upgrade this plant to secondary treatment. A major problem is in obtaining sufficient land area to expand to secondary treatment. It is hoped that physiochemical treatment might be employed within the available space and construction of this plant has been delayed to obtain more information on the design and performance of existing physiochemical treatment plants.

A major portion of the problem rests in the existing sewer facilities. During periods of heavy rainfall, subsequent infiltration and overflow will spill out into the east basin of the harbor. Surveys of the harbor are to be continued during coming summer.

New Rochelle Sewer District

The Commissioner's Order issued in October of 1968 requires installation of secondary treatment facilities. The consultant has proposed that Union Carbide's "Unox" process be used for which acceptance has been indicated provided provisions are made for rapid conversion to a conventional activated sludge-type process.

In February 1971, an environmental impact statement for New Rochelle and Echo Bay Harbors was received and reviewed.

Completion of the plant is expected in 1974 or 1975.

Port Chester Sewage Treatment Plant

Commissioner's Order to upgrade existing facilities was issued in October 1968. Report is currently under review and has been given top priority. Performance of the existing treatment plant has improved considerably since pH problems at the plant were corrected.

Recently the plant has been operating as well as can be reasonably expected. A television survey of some sewer lines disclosed an open flap valve which had been admitting salt water during periods of high tides. This valve has been sealed shut and the flow through the plant has stabilized considerably. The plant is expected to be completed in 1973.

Russell Burdsall and Ward

This firm no longer violates stream standards. The pickle liquor is presently trucked away and there has been an automatic oil separator installed. The firm has been placed on a program to eliminate wastes that violate the municipal sewer use ordinance. Part of the abatement program includes a study of the effect of NH_3 on the chlorination at the Village STP and sampling for oil.

In the past, R. B. & W. has undertaken a number of corrective steps to remedy the problems existing at the plant.

These steps include trucking away of all pickle liquor wastes, increased attention to the correct operation of the manual oil skimmer, and reduction of zinc-cyanide concentrations.

Shenrock Shore Club, American Yacht Club
Rye, New York

Facilities at this club consist of chlorinated septic tank effluents. These facilities may have some maintenance problems but the county has been dealing with these types of situations. This particular case will be investigated in more detail before the boating season begins.

Shell and Metropolitan Oil Co.

These are oil storage and distribution facilities. There are no industrial discharges, but there are sanitary wastes which are treated via septic tanks with chlorination of effluents during the bathing season.

STATUS SUMMARY

NEW YORK STATE WASTEWATER DISCHARGES
LONG ISLAND SOUND

Waste Source	Receiving Waters	Present Treatment	Waste Flow MGD	Enforcement Status	Project Status	Estimated Completion
			SUFFOLK COUNTY			
Greenport (V)	L.I. Sound	Primary, Chlorination	0.5	Supervised Schedules	STP UP; Final Design	7/72
Port Jefferson SD	Port Jefferson Harbor	Primary, Chlorination	1.1	Noticed for Hearing	STP UP; Prelim. Design	10/73
Kings Park St. Hospital	L.I. Sound	Secondary, Chlorination	1.0	Abated	To be Smithtown (T) Disposal Dist. #7	4/72
Northport (V)	Northport Harbor	Primary, Chlorination	0.16	Under Order	STP UP; Final Design	4/72
Huntington S.D.	Huntington Harbor	Secondary	2.0	Abated	STP UP	Completed
L.I. Lighting Port Jefferson	Port Jefferson Harbor			Not Cited as a Polluter		

STATUS SUMMARY

NEW YORK STATE WASTEWATER DISCHARGES
LONG ISLAND SOUND

Waste Source	Receiving Waters	Present Treatment	Waste Flow MGD	Enforcement Status	Project Status	Estimated Completion
			NASSAU COUNTY			
Quant Biological Lab	Cold Spring Harbor	Secondary and Sand Filters Chlorination	0.01	Abated	Completed	
Oyster Bay S. D.	Oyster Bay Harbor	Secondary, Chlorination	1.11	Abated	Completed	
Glen Cove Morgan Estates	L.I. Sound	Primary	-	Not Cited as a Polluter	P.S.; FM to Glen Cove (C) Final Design	4/72
Glen Cove (C)	Hempstead Harbor	Secondary, Chlorination	4.50	Not Cited as a Polluter	STP Exp. Prelim. Design	7/74
Roslyn (V)	Hempstead Harbor	Secondary	0.5	Not Cited as a Polluter	Completed	
Port Washington S.D.	Manhasset Bay	Secondary	2.7	Not Cited as a Polluter	STP Exp. Prelim. Design	4/72

STATUS SUMMARY

NEW YORK STATE WASTEWATER DISCHARGES
LONG ISLAND SOUND

Waste Source	Receiving Waters	Present Treatment	Waste Flow MGD	Enforcement Status	Project Status	Estimated Completion
			NASSAU COUNTY			
Great Neck SD#1	Manhasset Bay	Secondary	2.7	Not Cited as a Polluter	STP Exp Final Design	4/72
Great Neck (V)	Manhasset Bay	Secondary	1.3	Not Cited as a Polluter	STP Impr. Completed	
Belgrave S. D.	Little Neck Bay	Secondary	1.8	Not Cited as a Polluter	STP Impr. Final Design	7/72
			NEW YORK CITY			
Orchard Beach New York City	L. I. Sound	Primary Chem. Coagulation, Cl_2	Intermittent Seasonal	Not Cited as a Polluter	P.S.; F.M. to connect to Hunts Pt. STP Final Design	4/74
City-Hart Island New York City	L. I. Sound	Primary, Chlorination	1.00	Not Cited as a Polluter	P.S.; F.M. to Hunts Pt., Final Design	4/74

STATUS SUMMARY

NEW YORK STATE WASTEWATER DISCHARGES
LONG ISLAND SOUND

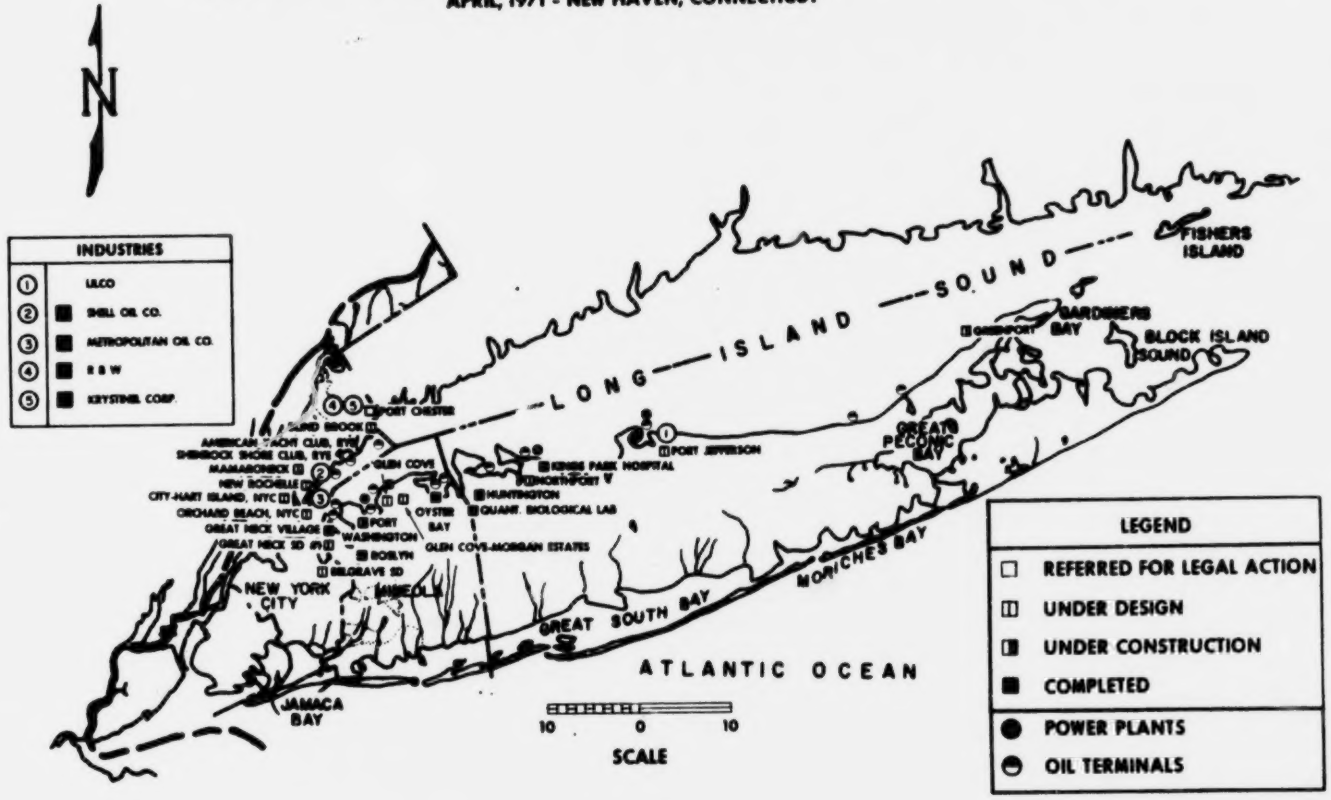
Waste Source	Receiving Waters	Present Treatment	Waste Flow MGD	Enforcement Status	Project Status	Estimated Completion
			WESTCHESTER COUNTY			
New Rochelle SD	L.I. Sound	Primary, Chlorination	10.60	Under Orders	STP UP; Under Prelim. Design	12/74
Mamaroneck	L.I. Sound	Primary w/ aeration to achieve Intermediate Treat.	18.00	Not Cited as a Polluter	STP UP; Pre-Design	12/75
Shenrock Shore Club - Rye	L.I. Sound	Septic Tank w/ Chlorination	-	Not Cited as a Polluter	Possible Tie-In w/ Blind Brook STP	
American Yacht Club - Rye	L.I. Sound	Septic Tank w/ Chlorination	-	Not Cited as a Polluter	Possible Tie-In w/ Blind Brook STP	
Blind Brook	L.I. Sound	Primary	2.[illegible]	Under Orders	STP UP; Prelim. Design	8/73
Port Chester	Byram River Port Chester Harbor	Primary	[illegible].50	Under Orders	STP UP + Exp. Ref. for Penalty Assess.	9/73

STATUS SUMMARY

NEW YORK STATE WASTEWATER DISCHARGES
LONG ISLAND SOUND

Waste Source	Receiving Waters	Present Treatment	Waste Flow MGD	Enforcement Status	Project Status	Estimated Completion
			WESTCHESTER	COUNTY		
Shell Oil Co. Mount Vernon	Hutchinson River	Oil Storage & Distribution Facility	No industrial discharges; sanitary wastes to septic tanks & chlorination	Not Cited as a Polluter		
Metropolitan Oil Co. - Mt. Vernon	Hutchinson River	Oil Storage & Distribution Facilities	No industrial discharges; Sanitary to Septic Tank w/Cl_2	Not Cited as a Polluter		
Russell, Byrdsall & Ward Port Chester	Byram River	Oil Separator Installed; Conn. to Port Chester System; Program for Compliance w/Sewer Use Ordinance	-	No Longer Violates WQ Standards		8/71
Krystinel Corp. Port Chester	Byram River	Elimination of Iron Oxide Discharge	-	Abated		Completed

STATUS SUMMARY
NEW YORK STATE WASTEWATER DISCHARGES
LONG ISLAND SOUND ENFORCEMENT CONFERENCE
APRIL, 1971 - NEW HAVEN, CONNECTICUT


N
INDUSTRIES
① LILCO
② ■ SHELL OIL CO.
③ ■ METROPOLITAN OIL CO.
④ ■ B & W
⑤ ■ KRYSTINEL CORP.
PORT CHESTER
BLIND BROOK
AMERICAN YACHT CLUB, RYE
SHENOROCK SHORE CLUB, RYE
MAMARONECK
NEW ROCHELLE
CITY-HART ISLAND, NYC
ORCHARD BEACH, NYC
GREAT NECK VILLAGE
GREAT NECK SD #1
BELGRAVE SD
ROSLYN
PORT WASHINGTON
GLEN COVE
OYSTER BAY
GLEN COVE-MORGAN ESTATES
HUNTINGTON
QUANT. BIOLOGICAL LAB
NORTHPORT V
KINGS PARK HOSPITAL
PORT JEFFERSON
GREENPORT
NEW YORK CITY
MINEOLA
JAMAICA BAY
GREAT SOUTH BAY
MORICHES BAY
GREAT PECONIC BAY
GARDINERS BAY
BLOCK ISLAND SOUND
FISHERS ISLAND
LONG ISLAND SOUND
ATLANTIC OCEAN
10 0 10
SCALE
LEGEND
☐ REFERRED FOR LEGAL ACTION
◫ UNDER DESIGN
◨ UNDER CONSTRUCTION
■ COMPLETED
● POWER PLANTS
◒ OIL TERMINALS

PREPARED BY THE NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF PURE WATERS
APRIL, 1971

MR. SEEBALD: This concludes my testimony, and I am available for questions.

We also have available Mr. Jensen of our Division of Marine and Coastal Resources and Mr. Harrison, our regional engineer covering Long Island Sound.

MR. STEIN: Thank you very much for a complete statement.

Let me check one thing. Do you mean the use of or sale of pesticides after January 1? You said "use." The reason I ask this -- and this is just for clarification -- is that on top you said "use of pesticides" and on the bottom you said ". . .December 31, 1971, after which new supplies may be bought. . ." Do you mean even if they have a supply no one can use it?

MR. SEEBALD: There is a control on both the sale and the use.

MR. STEIN: Yes.

MR. SEEBALD: The use permit is in existence as of now. So actually my understanding is that the use of the pesticides is controlled under permit at the present time.

MR. STEIN: I think this will help us. First you say these include a complete ban on the use of DDT -- in the second sentence. I presume that refers to January 1, 1971. Is that correct?

MR. SEEBALD: That's correct.

MR. STEIN: Now, when you say they can use it until December 1971, after which new supplies may be bought only by holders of permits, that doesn't mean to modify it? In other words, even if you have it on hand you can't use it after that date? Is that correct?

MR. SEEBALD: That's correct.

MR. STEIN: Thank you very much.

Let me just take a minute on this, because I think this is a tremendous advance in New York.

Just the other week in one of the Western States I began getting reports -- naturally over a weekend -- of tremendous fish kills in the State. What we did was trace this to the use of Toxaphene as a cattle dip.

This was one of the easiest cases I had, because what we discovered was they were dipping the cattle and then they had them go across to a corral after the dip, but there was a stream in between the dip and the corral, so after they got dipped with Toxaphene they went across the stream, so we had a good "cause and effect" and stopped it.

But I think this is a great thing you have done.

Are there any other questions or comments? If not, thank you very much.

MR. METZLER: There is a point that I thought perhaps deserved clarification, Mr. Chairman, if I might see if we could emphasize this a little more and be sure that the figures are understood by those here.

You mentioned the comprehensive sewage plans which the State of New York has developed jointly with the counties, and I thought the point perhaps needed emphasizing, especially in view of some of the questions that we received yesterday from some of the interested lay groups and environmental groups, that these actually provide a master plan, as it were, for further sewer development and for sewage treatment and that it takes into account both the most efficient way of providing the waste treatment and also the minimum environmental impact solution also.

You gave a figure of $1,365,000. That's the New York investment for comprehensive planning on the bodies surrounding the sound in New York?

MR. SEEBALD: That's correct.

MR. METZLER: Okay.

MR. STEIN: Are there any other questions or comments?

(No response.)

If not, thank you very much. I think this is a very complete report and a real contribution.

Mr. Metzler.

MR. METZLER: We have a few additional witnesses from New York. There was some mention yesterday of the flow of water from west to east, and so in the interests of handling the witnesses in the same order I would like to start with Mr. Joseph Miller who will be speaking on behalf of New York City here today.

Mr. Miller.

STATEMENT OF
JOSEPH T. MILLER
CHIEF OF DESIGN, DEPARTMENT OF WATER RESOURCES
NEW YORK, NEW YORK

MR. MILLER: Mr. Chairman, conferees, I would like to present a brief statement on the status of New York City's program on behalf of Martin Lang, Commissioner of Water Resources.

My name is Joseph T. Miller. I am Chief of Design, Department of Water Resources, New York City.

MR. STEIN: You're going to give our congratulations to Mr. Lang, aren't you?

MR. MILLER: I definitely will. Actually, he doesn't take over I think until July 3, but I know it was announced yesterday.

MR. STEIN: Right. I have been talking to Mr. Lang on the telephone. We expected this appointment of Mr.

Lang was imminent, but I am glad to see it came forth. I understand Mayor Lindsay did announce it.

MR. MILLER: Yes, sir. He did announce it I think it was around 11:00 o'clock yesterday morning.

MR. STEIN: Mr. Lang, as many of you know, has been a professional who has worked in the field about at least as long as I have, and, in addition to that, we both went to the same college at the same time.

Okay. Thank you very much.

I don't know that that's a recommendation for either one of us. (Laughter)

MR. MILLER: I went to the same school also.

New York City is presently in the home stretch of their massive $1.3 billion program to clean up the waters surrounding the city. This entire program has been consistent with all requirements of regulatory agencies -- Federal, interstate, and State. Present plans are for designing upgraded plants to remove over 90 percent of the pollutants -- namely, BOD and suspended solids, with adequate chlorination facilities.

We are now, as we have always been and will always be, responsive to the directives of these regulatory authorities.

New York City has always been a forerunner in the effort to improve the water quality in the harbor through actual construction of modern treatment plants and sewers. In addition, the city has testified in favor of more stringent classifications of harbor waters as proposed by the New York State Department of Environmental Conservation and the Interstate Sanitation Commission within the last year.

The immediate goal of this program is to treat 100 percent of the city's dry weather wastewater flow. In order to accomplish this goal, two new plants are being constructed, and 11 of the existing 13 treatment plants are being upgraded and/or expanded. One plant, Hart Island-City Island, is being replaced by pumping stations which will pump the sewage to Hunts Point for treatment. The other remaining plant, Newtown Creek, is presently being improved for more efficient operation.

In addition, in order to meet a stipulation with New York State to remove 90 percent of pollutants by 1978 at this plant, a research project to study the feasibility of oxygenated aeration is under way at Newtown Creek plant. If this process is successful, the entire plant will be modified accordingly.

Presently, the city is treating 1.1 billion gallons per day of its dry weather flow of 1.3 billion gallons per day, or over 75 percent. At the completion of this stage of the basic program, we will be treating 100 percent of the dry weather flow and will provide an ultimate capacity of 2 billion gallons per day at a total cost of just under $1.3 billion.

Although we are presently treating better than 75 percent of our present dry weather wastewater flow on a city-wide basis, I am proud to say that in the area contiguous to Long Island Sound, the immediate area to which this conference is directing its attention, the city is now treating 100 percent of the dry weather wastewater flow.

In fact, prior to World War II the city had concentrated its efforts towards the western end of the sound with the construction of three of the four treatment plants serving this area -- namely, Wards Island, Bowery Bay, and Tallmans Island. The fourth plant, Hunts Point, was placed on stream soon after the war. These plants, even at that time, were designed to give a degree of treatment in excess of any existing regulatory requirement.

In 1969 the records indicate that a total of 566 mgd were treated by these four plants with an average BOD removal of 71 percent. At the conclusion of this present stage of design, treatment capacity of these plants will be expanded to 725 mgd, encompassing projected increased flows beyond the year 2000, with a design removal of better than

90 percent of BOD and suspended solids.

In addition, adequate disinfection facilities will be provided at all locations. In the past the city has chlorinated at the Tallmans Island plant, the one closest to the Long Island Sound, since its inception, and has even placed temporary chlorination facilities at the Hunts Point and Bowery Bay plants. Last year the Department spent $1.2 million on chlorination.

The designs of the Hunts Point and the Tallmans Island plants have been completed and are presently being reviewed by the New York State Department of Environmental Conservation. In the Hunts Point plant the capacity will be increased from 150 mgd to 200 mgd at a cost of approximately $40 million. The Tallmans Island plant will be increased from 60 mgd to 80 mgd at a cost of approximately $30 million. The plans on the Bowery Bay plant have been completed, and the specifications are now being printed. This plant will be expanded from 90 mgd to 150 mgd at a cost of $55 million. The design of the remaining plant, Wards Island, is 90 percent complete, and the cost of this project is pegged at $35 million.

Although the design of these plants includes digested sludge barging to sea, we are aware of impending

Federal regulations which may eventually require the elimination of ocean disposal of sludge.

A recent acceptance letter of our application for construction of the Rockaway plant from the New York State Department of Environmental Conservation detailed the conditions under which the formal grant offer from the Federal Government was made:

"Federal regulations requiring the elimination of ocean disposal of sludge are now being developed, and no Federal grant payments will be made on this project until the city of New York has submitted an acceptable plan with a timetable for phasing out sludge disposal at sea."

This timetable is being developed, and the city will comply with this new regulation.

To meaningfully control a program of this size, to provide management with the systematic and factual flow of information, and to minimize assumptions, misdirected efforts, incomplete data, delays, and to thus enhance the decision-making process, New York City has inaugurated a modern and sophisticated management technique of resource allocation and computer-oriented scheduling under a separate Program Planning and Management Section.

Our latest projections indicate that the Hunts Point plant expansion and upgrading will be committed to construction by October of this year. The construction phase will then take three years to complete. Construction of the Bowery Bay plant upgrading and expansion, as well as the Tallmans Island plant upgrading and expansion, will commence by December of this year. Tallmans Island will take 40 months to complete, while the Bowery Bay project will be completed in three years.

Finally, construction has already started on several major contracts which are part of the Wards Island plant upgrading and expansion, with other contracts to follow in sequence until September 1972. The entire Wards Island project will be onstream by September 1975.

MR. STEIN: Thank you very much.

Are there any comments or questions?

(No response.)

Again, thank you very much, Mr. Miller.

MR. MILLER: Thank you, sir.

MR. STEIN: I don't want to look a gift horse in the mouth, and I'm glad New York is coming along with the elimination of their dumping of sludge at sea. When you get back to Mr. Lang, you might remind Marty of conversations I have had with him over the years, sometimes very forcefully. You can't say he wasn't warned.

MR. MILLER: Yes, sir.

MR. STEIN: Okay. Thank you.

MR. MILLER: Thank you, sir.

MR. METZLER: The next New York witness is Mr. Cal Weber from Westchester County Health Department, who is here to make a statement on behalf of Westchester County.

Mr. Weber.

STATEMENT OF
CALVIN E. WEBER
DIRECTOR, DIVISION OF ENVIRONMENTAL HEALTH SERVICES
WESTCHESTER COUNTY DEPARTMENT OF HEALTH, STATE OF NEW YORK
WHITE PLAINS, NEW YORK

MR. WEBER: I must apologize, gentlemen, for not having extra copies of my statement with me, but I am one of these people who make a lot of last-minute changes.

I am Calvin E. Weber, Director of the Division of Environmental Health Services of the Westchester County Department of Health in the State of New York.

Westchester County has been cognizant of the need to improve and maintain the quality of the waters of Long Island Sound for many years as evidenced by the existing wastewater treatment facilities owned and operated by the county at New Rochelle, Mamaroneck, and at Blind Brook in Rye.

These plants, constructed originally in the 1930's as screening plants, were upgraded and expanded within the past 10 years to provide improved treatment of municipal wastewater before discharge to Long Island Sound. Further, designs for expansion of the county-owned New Rochelle and Blind Brook facilities and for provision of secondary treatment at these plants are currently 75 percent and 25 percent complete, respectively.

The design for an expansion of the Port Chester treatment plant, currently operated by the village of Port Chester, and provision of secondary treatment is 25 percent complete.

The county of Westchester has formed a county sewer district which will encompass the Port Chester area and provide for the operation of the Port Chester sewage treatment plant as a county regional facility.

Through continuing cooperative efforts of the Westchester County Department of Health and the New York State Department of Environmental Conservation, corrective actions have been and are being undertaken by industries discharging to the Byram River in Port Chester. The New York State Department of Environmental Conservation has discussed these activities, which are not repeated here in the interest of brevity.

With respect to the existing Port Chester sewage treatment plant, it is recognized that operating problems have been experienced, primarily due to the effect of industrial waste discharges and salt water infiltration on the plant processes. As the result of a conference held by the Westchester County Department of Health, the mayor of the village of Port Chester outlined an eight-point program leading to improved operation and maintenance of the facility, to reduction or pretreatment of industrial waste discharges to the plant through improved enforcement of a local industrial wastes ordinance, and to a program to seek out and correct salt water infiltration. This program is in effect and has produced improvement in the performance of the plant.

The Port Chester sewage treatment plant currently discharges its treated wastewaters directly to the Byram River at the plant site. This practice most likely contributes to the coliform concentrations observed in Port Chester Harbor, particularly during the winter months, which have been determined to be higher than those found in other areas of Long Island Sound waters adjacent to Westchester County.

Under the current proposals, the treated wastes from the proposed expanded and upgraded Port Chester facility will be pumped to the outfall serving the Blind Brook sewage treatment plant, thereby eliminating this discharge to the Byram River with a resulting decrease in coliform concentrations from this source and an anticipated decrease in coliform concentrations in Port Chester Harbor.

Recognizing that there is a need for improved water quality surveillance of the waters of Long Island Sound and other waters contiguous to Westchester County, the Westchester County Department of Health purchased a 17-foot Boston Whaler in late 1970 and instituted a water quality surveillance program with emphasis on the Mamaroneck Harbor area. Samples were collected at 16 locations once each month for pH, chlorides, coliform and fecal coliform organisms, and once each month for pH, chlorides, coliform, fecal coliform, dissolved oxygen, temperature, phosphorus, and nitrates. The sample runs were made two weeks apart.

During the months of July and August, sampling was conducted at three locations for temperature, pH, dissolved oxygen, chlorides, nitrates, coliform, and fecal coliform on an hourly basis over a 12-hour tidal cycle.

Preliminary evaluation of the data indicates that treated discharges from the Mamaroneck outfall during the survey period are dispersed in the sound and do not have an adverse effect on the adjacent Westchester harbors. The data, which includes sampling on rivers and streams discharging to the harbor, indicates that the waters of Mamaroneck Harbor are affected by high coliform densities emanating from these streams and rivers. However, due to dilution and dispersion in the harbor, coliform densities as determined at bathing beaches in and adjacent to the harbor have not indicated a need to close these beaches.

The Westchester County Department of Health began a sanitary survey along these tributary streams in 1970 and intends to continue this survey, within the limits of available resources, during the coming summer in order to seek out the sources of the high coliform densities and to obtain abatement through appropriate enforcement action available to the department.

We also intend to increase the area of coverage of the water quality surveillance program and to reevaluate the constituents for which analyses are made with a view toward adding others as deemed necessary.

For at least 20 years the Department has conducted a bacteriological sampling program during the summer months at bathing places and check point locations along the Westchester County shore of Long Island Sound. Bathing beaches are closed, if necessary, for varying periods of time when bacterial quality is determined to be unsatisfactory by sampling or if the bathing waters are endangered by wastewater treatment plant effluents which are untreated or inadequately treated due to severe storms, power failures, or other emergency situations.

No bathing beach has been closed for high coliform counts for many years. It has been several years since beaches have been closed due to inadequately treated or untreated wastewater discharges resulting from emergency situations.

With respect to shellfishing in waters off the shores of Westchester County, it is recognized that the commercial shellfish areas off these shores are closed. It should be noted, however, that a 1970 report of the Division of Marine and Coastal Resources, Bureau of Environmental Control of the New York State Department of Environmental Conservation states that a review of the bacteriological data presented in the report indicates that there has been general improvement in the bacterial quality of the waters in the western area of Westchester County along Long Island Sound and recommends that the western area of Westchester County along Long Island Sound be certified for commercial shellfishing.

Westchester County has considerable interest in and concern for the waters of Long Island Sound due to its contiguous location, its vast recreational facilities, and its fish and shellfish resources and will continue this interest and concern.

MR. STEIN: Thank you, Mr. Weber.

Any comments or questions?

MR. CURRY: When will the Port Chester effluent be discontinued?

MR. WEBER: This won't be discontinued until the county facility is completed, and I don't recall what the date is. 1973 or 1975, isn't it?

FROM THE FLOOR: 1973.

MR. WEBER: 1973.

MR. CURRY: Thank you.

MR. STEIN: Any further comments or questions?

MR. METZLER: I want to take this opportunity to point out that New York is extremely fortunate as far as the environment is concerned in that both the State and local governments have invested a lot of money over a period of years in some very excellent local health departments, and this very modern, forward-looking kind of surveillance program which Mr. Weber has just described is the kind of backup that is absolutely essential.

Westchester County is one of the leaders. We also have some other very good health departments. As a matter of fact, they are doing some of this same work also located around the sound. I'm just taking the opportunity of your testimony to point this out to some who may not be familiar with that kind of backup.

I hope you will give our regards to Mr. (Mekalian) and thank him for the testimony that has been presented here today.

MR. WEBER: Thank you, Mr. Metzler. I appreciate your comments.

MR. STEIN: Thank you, Mr. Metzler.

MR. METZLER: The next statement is from Dr. Squires from the State University of New York at Stony Brook.

STATEMENT OF

DONALD F. SQUIRES

DIRECTOR, MARINE SCIENCES RESEARCH CENTER

STATE UNIVERSITY OF NEW YORK

STONY BROOK, NEW YORK

DR. SQUIRES: Mr. Chairman, with your permission I would like to have my statement entered as if read.

MR. STEIN: Without objection this will be done.

DR. SQUIRES: My name is Donald F. Squires. I am Director of the Marine Sciences Research Center, State University of New York, Stony Brook, New York. My testimony is presented on behalf of my associates at the Marine Sciences Research Center and not as an official of the State of New York.

The Marine Sciences Research Center was created as the focus for marine activities of the over 60 campuses comprising the State University of New York and the statutory colleges of Cornell University. The Center is housed on the campus of the State University of New York at Stony Brook in a newly constructed laboratory and office building designed for its own operations.

The Center operates research and instructional laboratories on Long Island, in the cold waters of the Gulf of Maine, and in the tropical waters off Jamaica, West Indies. In addition to its 40-foot research vessel, the RV/MICMAC, the Center makes use of the National Oceanic and Atmospheric Agency vessel, the RV/UNDAUNTED, a 145-foot oceanographic ship.

The Center has a research faculty of 13 and a supporting staff of over 30. In addition to its own resources, the Center draws upon faculty from the campuses of State University and Cornell in its role as providing leadership for coordinated research program directed towards the waters of New York State.

Since the commencement of its activities in September 1968, the Center has been engaged in over 30 research projects directly related to marine environmental quality and marine resource development. Three of these ongoing projects are directly relevant to the Long Island

Sound enforcement conference, for they affect the waters of Long Island Sound:

Thermal Loading in Long Island Sound Waters;

Effects of Nutrient Enrichment in Long Island Sound;

Environmental Effects of Solid Waste Disposal on Coastal Waters.

The research of the Center and its associates is closely coordinated with that of other universities in the area and particularly with the interests of local and State governments -- most importantly the Regional Marine Resources Council and the New York State Department of Environmental Conservation.

One of the most pressing problems facing the western regions of Long Island Sound is biostimulation and its attendant problems of water discoloration and fish kills through the release of sewage, treated or untreated, carrying nutrients which support large phytoplankton populations.

Investigations of Long Island Sound led by Professor Peter K. Weyl of the Marine Sciences Research Center have shown, by comparison with the studies of Riley (1952-55), that in the period from 1952-55 to 1969-70 there has been at least a doubling in the concentration of dissolved inorganic phosphates in the western portion of the sound.

These high phosphate levels combined with increases of as yet unknown magnitude of the various species of nitrogen serve to support extensive growths of plankton particularly during the late summer bloom. While surface waters are temporarily enriched, the lasting effects of the input of oxygen-demanding solids derived from sewage treatment plants and the decay of the phytoplankton bloom result in extremely low levels of dissolved oxygen in bottom waters.

During August 1970, oxygen levels were as low as 1 ppm of dissolved oxygen compared to surface supersaturated values for much of the region to the west of Stepping Stone Light into the area of the East River. In this region the problem of oxygen depletion is exacerbated at least locally by heating of water passing through powerplant condensers. Further, in the westernmost region the phytoplankton bloom is apparently inhibited by as yet unknown factors so that oxygen values are low throughout the water column.

The answers to the problems created by sewage input to the western portion of Long Island Sound are not easily obtained through simple upgrading of sewage treatment. Knowledge of the dynamics of plankton blooms and their utilization of the nutrients added through sewage must be combined with an understanding of the outputs of treatment plants in terms of oxygen-demanding substances and perhaps other components.

Also to be considered are the impacts of extensive blooms upon the food chain and the relationship between such blooms and extensive fish kills such as occurred among menhaden or "mossbunker" in the summer of 1970 and finally the long-term effects of the settleable solids discharge to Long Island Sound substrate through sewage treatment plants.

Long Island Sound presently has 19 designated (and one undesignated) dumping sites, not all of which are receiving wastes at the present time. Although we have been investigating these sites for the past year, the evidence of the environmental effects of the disposal of dredge spoils in these areas is not clearcut. At present the Long Island Sound sites are principally recipients of construction debris (until 1970) and of dredged materials removed from Connecticut harbors.

These latter present a plaguing problem, for most harbors are in reality primary settling basins for the effluents of industry, municipalities, and rivers which empty into them. The bottoms of these harbors are frequently covered with organically rich debris which may eventually constitute a problem if discharged improperly into the sound. These may be particularly acute when oxygen-consuming wastes are discharged to already degraded low-oxygen waters.

There is a possibility of utilizing dredge wastes beneficially to improve the benthic productivity of the sound if undertaken with proper management and knowledge. These studies are being led by Professor M. Grant Gross of the Marine Sciences Research Center.

Thermal effluents released to Long Island Sound are not evenly distributed but, rather, are heavily concentrated in the most impacted area of the sound. Answers to the vexing problem of the environmental effects of thermal pollution are neither easily found nor are the detriments easily demonstrated. While every effort should be made, in the interests of our society, to more effectively utilize the waste energy released by steam electric generating plants, it is possible within reasonable limits to continue the use of Long Island Sound as a thermal sump providing that good management techniques are followed.

Three points should be made today:

1. Waste discharges have degraded water quality in the western portion of the sound and in the bays and harbors, but the central and eastern portion of the sound are much less affected;

2. Long Island Sound cannot be treated as a single unit but must be divided or zoned, and the waste-carrying capacity of each zone must be determined in order to protect the sound on a long-term basis;

3. Waste disposal leaves a long-term environmental debt in the form of deposits which release nutrients to the water and consume dissolved oxygen long after direct waste discharges have been eliminated.

I should like to comment briefly on each of these points.

As mentioned in my introductory statement, the western portion of Long Island Sound is the most degraded. It is here that disposal of domestic and industrial wastes, thermal effluents, and recreational utilization of the sound find themselves in most direct conflict. The resolution of this conflict has short- and long-term implications.

In the longer term, it is certain that we must learn to better utilize our resources particularly through the recycling of wastes. Thus, we all look forward to the day when liquid-phase effluents from sewage treatment plants will be recycled to the water supply and some beneficial utilization will be made of the solid phase.

Similarly, it is hoped that we will learn to utilize the waste heat of the electrical power generating process so that it will not be wastefully released to the environment.

In the shorter range, however, we must seek techniques to minimize the impact of these wastes on our environment while present disposal practices continue.

The crisis of the western sound relates principally to the discharge of nutrients in the liquid phase of sewage plant discharge. The results of the enforcement conference will be to spur communities to install sewage treatment processes where none exists or to upgrade inefficient plants. This process can only result in an increased volume of wastewater being discharged into Long Island Sound, thereby exacerbating an already critical situation.

Every attempt should be made by the Environmental Protection Agency to encourage municipalities proposing to upgrade treatment facilities, where these are required, to institute new technologies which remove nutrients from the wastewaters. This is an urgent and critical requirement, particularly in the western region of the sound, if environmental conditions are to remain stable or improve.

Further, techniques must be developed which permit the effective segregation of industrial wastes, particularly those containing heavy metals, from domestic sewage so that we do not add these contaminents to the already burdened waters of the sound.

These actions are urgently required before citizens of this region are burdened with long-term indebtedness in the construction of facilities which will not effectively resolve the environmental problem and which may lead to further deterioration of western sound waters.

This leads me to the second point. The sound is not a single simple system as far as water circulation and marine organisms are concerned. Therefore, we must be able to identify and treat each major unit separately. Each area has a limited capacity to receive wastes without exhibiting unacceptable deterioration in water quality. For example, the western portion of the sound and the bays must be treated separately from the central and eastern regions. The western portion is the site of maximum population density and the sites where urban wastes have had the maximum impact.

We must not, however, ignore the rest of the sound. It too can be overloaded with wastes leading to degraded water quality.

In short, I am calling for zoning Long Island Sound and its adjacent waters to guide our thinking on short-range placement of facilities such as sewage treatment plants and steam electric generating facilities.

Much of the concern about the quality of Long Island Sound has revolved around sewage or industrial wastes. However, the electric generating process adds a much more subtle and more difficult pollutant in the form of waste heat. We should not concentrate our attention upon nuclear generating plants, for fossil fuel plants contribute to the heat burden just as significantly.

Present siting practices have resulted in the concentration of powerplants near the metropolitan region. Existing thermal pollution regulations are restrictive only in the character of discharge and in the thermal ranges permitted. We urge that more consideration be given to the zonation of Long Island Sound for thermal discharge and that policies regulating the siting of powerplants also recognize the amount and character of the already existing thermal and nutrient burden as well as optimum methods of waste heat disposal.

In brief, we advocate as a short-term solution to the thermal pollution problem the dispersion of electrical generating facilities to the central and eastern regions of the sound; thus, the impact may be minimized.

Thirdly, we must recognize that the sound has a long memory. Its present condition did not arise instantaneously, and it will not be cleaned up overnight even if all construction schedules are met and all waste treatment facilities operate at peak efficiency. Past abuses of the sound and its bays have left deposits on its bottom which will release nutrients at an unknown rate and use dissolved oxygen from its overlaying waters. We must learn to manage these deposits to accomplish the long-term cleanup we all desire.

Strategies to deal with this problem include:

1. Leaving the wastes in place and accepting the environmental degradation;

2. Remove the wastes and accept temporary degradation of water and temporary degradation when deposits are disturbed; or

3. Covering them with a less detrimental material to lessen the impact.

We lack the information needed to assess the environmental as well as fiscal cost of each strategy or to predict the results of every course of action.

Waste management and environmental rehabilitation are the objectives of the research program of the Marine Sciences Research Center. We seek to understand the physical and biological processes governing the sound so that we can predict its waste-handling capacity and then zone it so that harmful wastes are eliminated or released in acceptable quantities. Some of the wastes now dumped may actually prove to be useful to buy other objectionable wastes or to provide the habitat for desirable organisms.

Since 1968, when it began research operations, the Marine Sciences Research Center of the State University of New York at Stony Brook has conducted research and monitoring programs to determine the quality of Long Island Sound waters and the condition of the floor of the sound.

A list of the publications resulting from this work is attached, and I request that it be included in the record.

Still, we have much to learn about the sound and its organisms before we can accomplish these objectives. But to materially improve water quality in even small areas of the sound we must begin to acquire the understanding called for. Some of this involves application of known principles. In many instances we must begin with long-term research to obtain basic information. Obviously, we are late, but we cannot afford to delay further these necessary steps.

(The list of publications referred to follows:)

Technical Report Series - Marine Sciences Research Center

No. 1 Invertebrate Survey of Flax Pond
Summer, 1967. 39 pp.
by George J. Hechtel

2 New York City -
A Major Source of Marine Sediment. 24 pp.
by M. Grant Gross

3 Biological Effects of Thermal Pollution
Northport, New York. 107 pp.
by George J. Hechtel, E. J. Ernst, R. J. Kalin

4 Hydrographic Data Report
Long Island Sound, 1969. 129 pp.
by Charles D. Hardy

5 Preliminary Analyses of Urban Waste,
New York Metropolitan Region. 35 pp.
by M. Grant Gross

6 Hydrographic Data Report
Long Island Sound, 1970, Part I. 96 pp.
by Charles D. Hardy and Peter K. Weyl

7 Analyses of Dredged Wastes, Fly Ash and
Waste Chemicals. 33 pp.
New York Metropolitan Region
by M. Grant Gross

8 Survey of Marine Waste Deposits,
New York Metropolitan Region
by M. Grant Gross, _et_. _al_. In Press.

9 Studies on the Effects of a Steam-Electric
Generating Plant on the Marine Environment
at Northport, New York
by Thomas H. Suchanek Jr., Jeffry B. Mitton _et_. _al_.
In Press.

10 Hydrographic Data Report
Long Island Sound, 1970, Part II.
by Peter K. Weyl and Charles D. Hardy. In Press.

Copies of the above are available by application to the Director, Marine Sciences Research Center, State University of New York, Stony Brook, New York 11790.

MR. STEIN: Thank you, Dr. Squires. That was a very excellent statement and analysis of the problem. Maybe I say that because that's the way I look at it.

DR. SQUIRES: I'm glad you do.

MR. STEIN: But this is a very interesting point. I haven't dealt with Dr. Squires before, but I think the way we lay out the problem and analyze it is almost parallel to the way you have done it here. And I think we have done it independently, which to me is kind of interesting. We have arrived at identifying the same kinds of areas and the same kinds of problems within them.

Are there any other comments or questions?

MR. GLENN: Yes, Mr. Chairman. I was interested, Dr. Squires, in 1970, in August, in the fish kills, you attributed them all to pollution and lack of dissolved oxygen. This was right in the middle of our survey where we were actually sampling each station three times a day for three weeks. We did not experience, in the area we found most of the menhaden, this dissolved oxygen deficiency.

And also I think after talking to fish biologists --which I'm not -- we could not lay it to this problem. Because I don't think we could explain, if there was a lack of dissolved oxygen, why the dissolved oxygen was so selective and only killed mossbunkers. We didn't find any other type of fish in this large area -- and there are thousands and thousands of them -- that died at this time. There are other types of fish.

And also I know by the fishermen in the area at the same time. Within two days of this they were telling us how they were fishing through a school of mossbunkers and catching blues underneath them. So again they were fishing deep enough.

So I have not had fish biologists agree that this was the cause of that large kill of mossbunkers.

DR. SQUIRES: I do not wish to attribute all of the mossbunker kill which has occurred and has occurred annually in the sound for many, many years -- not annually but periodically in Long Island Sound -- to this particular problem. But I think that we had a much more extensive kill last year, and this can in part be attributed to it.

MR. GLENN: Can this be partially because they had stopped the commercial taking of mossbunkers out there and there would be a lot more mossbunkers than in previous years?

DR. SQUIRES: It might have something to do with it. The complexities of reactions of fish to the low oxygen values are --

MR. GLENN: I don't know --

DR. SQUIRES: It is a fact -- and I could substantiate this since I was on the cruise at the time -- that one of the areas of lowest oxygen values did occur in the center of the bluefishing fleet which was very successfully taking blues at the bottom. But these are part of the complexities of the fisheries problem.

What we are looking at at the present time in Long Island Sound are short-term deficiencies in oxygen. What we can look forward to are long-term deficiencies in oxygen. As we get into that situation, then the character of the organisms at the bottom, the character of the organisms in the mid-water will very definitely change, and this is going to have a profound effect upon the fish that are able to move in and out of the region.

MR. GLENN: As you know, Dr. Squires, we have been working with your group, and the majority of your testimony I am in favor of. But I was surprised at it here because I don't know of any fish that will live in 1 ppm, and I couldn't see how we didn't kill something else if it was dissolved oxygen that killed all the mossbunkers.

DR. SQUIRES: There were other organisms which were detrimentally affected, most notably the lobsters. Many of the traps in the region were bringing up red lobsters. They were in a state of advanced asphyxiation from the low oxygen levels.

MR. STEIN: Any other comments or questions?

Yes, Mr. Gregg.

MR. GREGG: Did you hear the discussion yesterday about research -- or nondiscussion, however you want to characterize it?

DR. SQUIRES: It sounds as if I had the pleasure of missing it.

MR. GREGG: It occurs to me, if it wouldn't be too much trouble, you might help the conferees by offering any further thoughts you may have about research priorities, particularly relatively short-range ones, as specifically related to water quality, because the conferees are going to have to come up with some recommendations here over a period of, you know, a relatively short time.

Maybe you could zero in on some researchable work that relates to these general areas that you have identified. It would be helpful. I wouldn't ask you to do it now. Perhaps if you could do it later before this afternoon --

DR. SQUIRES: Let me give a very quick response to that. It is our philosophy that there are two kinds of research endeavors one can undertake.

One is short-term management practice-oriented research. That can provide palliatives for the environmental situation.

Then there is the more complex and, unfortunately, longer-term activities that are going to be required to provide the final answers that we all so much desire.

But there exists, I feel quite confident, enough knowledge in many areas so that we can devise -- with real-time data collecting activities, real-time planning activities -- management programs to deal with the environmental crisis within the next two or three years. We can actually implement some of these practices within that time framework, and I think that's about as much time as we have in many areas.

That's a very crude overview of the situation.

MR. STEIN: Any other comments or questions?

MR. METZLER: I'd like to ask Dr. Squires a question here, or perhaps two. You emphasized the nutrient problem in the western part of the sound. Do you have any evidence over some period of time to show trends? Is the nutrient problem worse now than it was 10 or 20 years ago?

DR. SQUIRES: The difficulty is the absence of replicable information. The best baseline information existing on Long Island Sound is the work that was done by Gordon Riley of the Bingham Oceanographic Institution during the mid-1950's, and the only data that we have been able to use are the phosphate levels, and these show a very, very substantial increase, a doubling in the phosphate levels.

This is, from all evidence, probably attributable to the introduction of detergents into the region.

MR. METZLER: Has this shown a comparable increase in growth of algae in the sound?

DR. SQUIRES: That's a difficult one.

MR. METZLER: Has this been accompanied by a corresponding --

DR. SQUIRES: I think it is accompanied by the release of nitrogen, various species of nitrogen, various forms, into the waters of the sound through the added outfalls, sewage outfalls.

The unknown factor here, of course, is the amount of nutrient transfer through the East River and Throgs Neck region into the western sound.

We don't have good base-level information on nitrogen to accompany the phosphate story. So to give a direct answer to your question is not possible.

MR. PELOQUIN: Mr. Chairman, a question.

MR. STEIN: Yes.

MR. PELOQUIN: Is Mr. Riley's data available? Are they available? The mid-1950 data?

DR. SQUIRES: Yes. These were published in the reports of the Bingham Oceanographic Institution in a series of volumes which encompass all of his data.

MR. PELOQUIN: What institute, please?

DR. SQUIRES: The Bingham Oceanographic Institution at Yale.

MR. PELOQUIN: One other question, Doctor. On the list of publications, I have just received your Publication No. 6, I believe. I'm interested in the 3 and 9. Is the charge for those the same as for all your other publications?

DR. SQUIRES: Yes. Our technical reports are at the present time sufficiently in demand so that we have had to institute a charge or go broke.

MR. PELOQUIN: Okay. Thank you.

MR. STEIN: Let me ask you something specific, because, unfortunately, while I agree with your classifications, most of the management that I am faced with is short-term decisions that we have to put in. Maybe they are palliatives, but I'm not sure that the long-term research has led to very much more. But let --

DR. SQUIRES: One always hopes.

MR. STEIN: Yes. One always hopes.

Let me find out what you specifically mean. You say, "...encourage municipalities proposing to upgrade treatment facilities,where these are required,to institute new technologies which remove nutrients from the wastewaters." Do you mean phosphorus removal, carbonaceous removal, nitrogen removal? Do you want to be specific on that?

DR. SQUIRES: Yes. The question of the effective nutrient and biological oxygen-demanding substances and that interplay that occurs causing the phytoplankton bloom that we have now in the western sound is a complex issue. It seems certain that the definition of an adequate sewage treatment plant is going to involve an understanding of the interplay between the BOD, the solid component, and the nutrients which are put into the sound.

The answer is not going to be a straightforward "this is the general rule" sort of a situation. It's quite possible that the character of the discharge of a sewage treatment plant in one area may have to be different than that in another in order to balance the natural processes.

The removal of nutrients from effluent -- and I want to stay out of the question of recycling, which I think is a little longer-term question -- but I think removal of both nitrogen and phosphate from effluent waters is of pressing concern. And while the technology that we have that will do this sort of a job is as yet embryonic, every pressure should be made to introduce these embryonic technologies beyond the pilot phase and into the actual operating phase.

MR. STEIN: We are a little farther along on phosphorus removal than nitrogen removal, as you might know.

DR. SQUIRES: The nitrogen may in the longer run be the more substantial problem.

MR. STEIN: That's right. But I think the question I am asking, Doctor, is this: If we are going to set up a program for waste treatment facilities in the sound -- let's assume you take the zones, and the most critical zone is the western zone -- we generally have to deal with percentage these days of phosphorus removal. Because if the people are producing, say, 3.5 pounds of phosphorus per capita -- I don't know how much runoff you have, but let's assume we are just dealing with stuff coming per capita -- we can just deal with a reduction.

Now, have you thought in terms of the kind of phosphorus and nitrogen reduction we need for these areas?

DR. SQUIRES: This is the stage we are in -- is to begin to define what these levels might be.

MR. STEIN: Let me give you the situation that we are faced with. I want to give you a spectrum of stuff. For example, in Lake Michigan and Lake Erie we asked for 80 percent on a Statewide basis on phosphorus reduction, nothing for nitrates. In the Potomac, at the other end of the spectrum, we asked for a 96 or 98 percent phosphorus reduction and about the same level of reduction of nitrates, knowing that we were in an embryonic state.

In some of the Southern bays, such as Mobile Bay and Perdido Bay and Escambia Bay, they were up in the high 90's too.

By the way, as you may or may not know, but I'm sure you do with the sophistication of your paper, if we say from 80 to 90 you're doubling the cost. If instead of saying 90 we say 96, you're doubling the cost again from 90.

And I guess for the people here who aren't familiar with this, if you say 90 you have 10 percent left, and if you say 96 you are removing 60 percent of the pollution load that is going in, and that's quite a bit.

Now, have you any idea of the kind of nutrient loadings that we can tolerate? Or are we at the critical point where we have to come out with an all-out program to get these removed as we had to do on the Potomac? Do you have any views on that?

DR. SQUIRES: Yes. I believe -- and I'm talking for another one of my colleagues, Professor Weyl, who is presently at sea coping with some problems -- we are at the stage where we can begin to define. We would like to have the coming summer to look at our data again.

The difficulty of dealing with these problems is you are dealing with episodes that are occurring once a year. Summer comes once a year. It makes it difficult to work on an accelerated time scale. With the potential of seeing the process again, looking at it again, in the coming summer, we may be at the stage where we can actually talk to what the levels are.

The message I wanted to leave today was not so much that we know what these levels are, but my concern is that of the taxpayer who pays an inordinate amount of his income in taxes -- feeling that when I go into a bond issue to build a sewage treatment facility I want to know that the money is being spent in the most effective way.

And I'm alarmed at the somewhat pedantic, pedestrian progress of sewage treatment from primary to secondary, to secondary biological, and so on, when, in fact, we may be in many areas, particularly in the western portion of the sound, faced with a problem which should cause us not to go through an evolutionary phase with a 20-year indebtedness attached to each step but, rather, to make some jumps in the process.

MR. STEIN: That's right. But --

DR. SQUIRES: The information that we need is the information that we hope to be able to provide you.

MR. STEIN: All right. In other words, let me try to get the recommendation from you in the setting up of this program particularly in terms of nutrient removal. Your suggestion is if we set up a technical group and they cooperate with you, you think we might have the answers by the end of the summer?

DR. SQUIRES: I would hope that we will be a lot further down the pike. Now, we already have, in a sense, the coordination that is required here. At least I hope we have. We have been working with the group at Edison and with the Interstate Sanitation Commission and with some of the county health departments in the coordination of data gathering and the projection of where the numbers we get actually are going to take us.

I think probably what we need to do is to now get together and do a little analytical work jointly rather than separately.

There is a remarkable amount of activity going on in the western sound both at a Federal and a State, and a private if you wish, level. This is loosely coordinated now, and it should, hopefully, bear fruit at the end of this coming summer.

MR. GREGG: Is Dave Wallace working with you on this?

DR. SQUIRES: Yes. We are very closely in touch with the environmental conservation people, Wallace in particular.

MR. STEIN: Well, I think the answers we're going to get from the kind of work that you and other people are doing are going to be possibly the essential answers for our program here, at least in dealing with municipal wastes and organic wastes. And as you talk in terms of the bond issues or the multimillion dollars we're going to spend, either we're going to go for that or not.

The point I really have to make is that we are going to have to come up with a judgment on that pretty soon. Because assuming that your analysis of the conditions of the western end of the sound is correct -- and I say assuming that, without my drawing a conclusion -- we don't really have the time. We have to come up with an answer and get moving very rapidly.

Even if we had the answer today, we probably would be three years away from the plants going into operation, and you're not going to get any improvement until we throw the switch.

DR. SQUIRES: I completely agree.

MR. STEIN: Okay. So what I'm trying to do, what I'm seeking here is eventually in order to make this program work or to get us to commit money -- and you have heard

Mr. Metzler. He doesn't think we nearly commit enough -- but in order to get us to commit money and New York State to commit money and us to determine whether we're going to bring an enforcement action to take someone to court or not for being in violation, we have to -- and I'm going to use a fancy word, and I hate to use these fancy words -- we have to quantify it. In other words, we have to come up with a number.

We're going to ask you whether you are going to get any phosphate removal, whether you're going to get 60, 70, 80, 95, 96, or 98, and do the same thing with nitrates or carbonaceous material, however you might want to state this, in what terms you might want to state the other aspect of the problem -- get this to the States and to the municipalities in sufficient time so they can crank that into the problem.

If they have any objection to this, they can have due process and tell us they think we're not right.

But we're going to have to come up with these numbers to propose pretty soon.

DR. SQUIRES: Right.

MR. STEIN: All right. Thank you.

MR. KLASHMAN: Dr. Squires, could you elaborate a little bit more on what you are doing in the thermal loading problem? I mean how extensive is the work that-- I realize that your staff is, you know, very limited and that the sound is rather a large body of water, but how extensive is the thermal work you're doing and that you contemplate?

DR. SQUIRES: Starting at the smallest scale and working up, we have had a single fossil fuel generating plant under fairly extensive study for nearly three years now, since late 1968, the Northport powerplant of the Long Island Lighting Company. We have used this an area-- Since it's a fairly new plant, newly constructed, we didn't have to look at the long-term integration of the effects of thermal pollution. We have used this as a baseline for the effects of a single powerplant upon the local environment.

We then began to project ahead looking to the point in time when we might begin to get interaction between powerplants and also the synergistic effects that occur in the interaction between nutrients and heat as pollutants in a body of water.

The question of the future development of powerplants is a very nasty one because it has so many conditions and qualifications built around it. If you take the straight-line projections of the Federal Power Commission and you assume that every plant that is built will be a 1,000-megawatt plant and you take the population growth and projected energy utilization for the metropolitan region, you come to the conclusion that there will be a powerplant every 3-1/2 miles on the Long Island Sound shoreline. One has the feeling that this is probably an overextension of straight-line projections.

We have, therefore, moved into the question of projections in a more realistic fashion -- that is, getting away from straight-line projections -- and have been working with the Atomic and Space Development Authority of New York, which is the authority which is involved in the acquisition of sites for powerplant development and probably provides much of the leadership in New York State for plant siting, and have been working with them in the question of where they see things going in the State and how they see, together with the State Power Commission, the metropolitan power shortage in that area.

The concept of zoning of the sound emerged fairly early in our thinking as a working hypothesis to prevent the interaction of powerplants through their concentration.

There are several factors that work toward the concentration of powerplants -- the territoriality of the power generating company, the problems associated with construction of transmission lines, which are another environmental problem. The fact of the matter is that the density of power generating capacity is greatest in the metropolitan region. It's this region where all the other pollution problems are also intense.

The dispersion of power capacity and the location of future power generating sites is now our focus, looking at these from the viewpoints of: Where do you put a plant if one is required? And it's obvious that there are going to be power plants required. Where do you put them so that the synergistic effects and the interacting effects are minimized?

MR. KLASHMAN: Do you have, in your opinion, enough data now from your work in Northport to make these judgments now? In other words, do you have to get more data on what has happened in order to make these projections? Or do you feel you have enough field data in order to make some meaningful judgments -- that is, with a little bit of confidence?

DR. SQUIRES: As a first cut, I think probably enough information exists to provide management guidance. Problems become then ones of engineering, intake and outlet design, siting both in terms of local characteristics and regional characteristics. And these are separate problems. Transmission lines are another problem altogether. Nodal points in the transmission network. These are all factors which enter into the picture and may be totally outside the question of water quality in terms of thermal pollution.

MR. KLASHMAN: We are very much concerned about these, but at the moment we were trying to zero in. I realize those are all very important. But the thing that concerned me is we have, as you know, seven nuclear powerplants projected for the sound right now. The question comes up, first, in your judgment, is there any possibility of building these without some type of cooling towers? Or in your opinion is it possible to discharge these wastes, cooling water, to the sound without any type of treatment at all?

This question is obviously going to come up, and it affects the cost. In your judgment, is there any possibility of discharging without cooling towers or some sort of device for --

DR. SQUIRES: That's a lovely loaded question. (Laughter)

MR. KLASHMAN: I appreciate the fact that you --

MR. METZLER: You ought to insist on getting paid a consultant's fee for answering it. (Laughter)

MR. STEIN: You don't have to answer.

MR. KLASHMAN: No, I appreciate the fact you may not officially answer that.

DR. SQUIRES: There are tradeoffs involved. And it is possible through careful site selection -- and I'm leaving the question of the radioactive wastes out --

MR. KLASHMAN: No, I'm talking about heat at the moment.

DR. SQUIRES: Just the heat. It is possible to select sites which will have a minimum impact upon the environment and that it is then a social and political judgment whether those minimum impacts outweigh the costs to the environment.

MR. KLASHMAN: That is a very good answer, Dr. Squires.

MR. STEIN: Any other questions?

MR. KLASHMAN: Dr. Squires, I want to thank you very much for your statement.

MR. STEIN: By the way, for I know possibly some people from the power industry and certainly the public people that are here, I'd like to just make one comment because we have wrestled with this problem at least in Washington, and I don't know how far you have done it here.

But if you look at the New York requirements for temperature, and without going into them much, you say either they go up 4 degrees or 1.5 degrees, whatever it is, and then you have a radius of 300 feet or more for a mixing zone or what people call a mixing zone.

I don't want to get into the details of that, but I want to talk about the implications that you raised, because this is coming up again and again in the power industry where you get a bunching of plants. How do you apply that?

I think what we have come up with is a requirement that plants, say, not be more than five miles close to each other or certainly their flumes not intersect. But where the power industry takes upon itself to bunch its plants they may be faced with this kind of 300 feet as applying to that whole cluster and their problems may increase in geometric proportions in trying to meet these necessary requirements.

I don't know that has been particularly thought through. I certainly agree with you that the siting of these plants I think is the single most important factor. But again I say to all of you if we have this kind of restriction -- and it looks as if this or a variant of it is going to be the kind of restriction -- it has a very special impact if someone decides to put up a cluster of plants.

Are there any other comments or questions?

(No response.)

If not, thank you very much, Doctor.

MR. METZLER: So far as I know, we only have one other person from New York to speak. If there are others who have not indicated a desire to be heard, then if they will get their names to me while Mr. Doebler from Long Island Lighting Company is speaking, I will see that they will get on immediately following him. Otherwise, Mr. Doebler will finish the list of those from New York who have indicated a desire to speak.

STATEMENT OF

HENRY M. DOEBLER

DIRECTOR OF PUBLIC AFFAIRS

LONG ISLAND LIGHTING COMPANY

MINEOLA, NEW YORK

MR. DOEBLER: I have no copies.

MR. METZLER: I am sure it will be logical and we will be able to follow it without a copy.

MR. DOEBLER: Good morning, gentlemen. My name is Henry M. Doebler, and I am the Director of Public Affairs of the Long Island Lighting Company.

With me here today is Dr. Matthew C. Cordaro, Senior Environmental Engineer for the company. We would like to make a brief statement.

Our attendance at this conference was inspired in part by an article that appeared last Friday in Newsday, a prominent daily on Long Island. This story notified us that the Environmental Protection Agency report on the water quality of Long Island Sound had cited our powerplant at Port Jefferson as the sole industrial source of pollution to the sound on Long Island.

Yesterday we were able to confer with various representatives of the EPA and the State of New York and determined that the Port Jefferson citation centered around the handling of sanitary waste at this location.

The New York statement just submitted clarifies this at page 13 where it states, "Domestic wastes are discharged to municipal sewer system."

Also, at page 18 of the New York statement the summary comments that the Port Jefferson powerplant is not cited as a polluter.

We also note some other minor errors in the EPA report that we would like to mention here and correct in a letter to the conference if that is acceptable.

On page 16 of the EPA report, under the heading "Discharges of Oil and Petroleum Products," the report identifies an offshore oil unloading facility of the Long Island Lighting Company near Port Jefferson. This facility is not at Port Jefferson but is at our Northport powerplant.

Also, Table A-1 indicating the installed capacity at our Northport and Glenwood Landing powerplants is incorrect. The correct figures will be contained in our letter.

MR. KLASHMAN: Excuse me. Would you repeat that again on the offshore loading facility?

MR. DOEBLER: Yes, sir. This is in the EPA report, page 16.

MR. KLASHMAN: Do you have a copy of the report?

MR. DOEBLER: Yes, sir. I have a copy.

MR. KLASHMAN: Could you explain what your correction is in the report?

MR. DOEBLER: Yes. Reading from the report under the title "Discharges of Oil and Petroleum Products"* in the middle of the first paragraph, it states, "Two offshore oil unloading facilities are also located on the sound -- at the Long Island Lighting Company near Port Jefferson, New York and at Northville Industries, Incorporated near Northville, New York."

I am merely stating, Mr. Klashman, that that facility is not at the Port Jefferson plant but is at our Northport plant some 15 miles or 20 miles to the west.

MR. STEIN: Go ahead.

MR. DOEBLER: That basically concludes our statement as to the report. But speaking for the Long Island Lighting Company, we would like to pledge our cooperation to this conference and to continue our cooperation with every agency at the Federal, State, and local level that has an interest in the water quality of Long Island Sound.

Thank you.

MR. STEIN: Are there any comments or questions?

* - See section III, subsection entitled "Discharges of Oil and Petroleum Products," EPA Report.

(No response.)

If not, thank you very much, sir.

MR. DOEBLER: Thank you, sir.

MR. STEIN: Mr. Metzler.

MR. METZLER: I have one more witness, Dr. Nils E. Erickson of the Environmental Defense Fund.

STATEMENT OF

NILS E. ERICKSON

ENVIRONMENTAL DEFENSE FUND

EAST SETAUKET, NEW YORK

DR. ERICKSON: My name is Nils E. Erickson, employed by the Environmental Defense Fund as an environmental science adviser on water pollution problems.

The Environmental Defense Fund is a nonprofit organization with a nationwide membership of persons concerned with environmental problems. Our main office is in East Setauket, New York. The operational staff is composed of scientists and lawyers, and I happen to be a chemist.

One of our primary activities is litigation in environmental problem areas, and we have chosen litigation over some of the more traditional conservation organization tactics of lobbying because we feel that litigation is often more rapid and more effective than the more traditional approaches. Also, the courtroom forum, where cross-examination can occur, is often the only means whereby rhetoric can be separated from truth.

Some of the speakers at this hearing have managed to point out certain deficiencies and errors in the EPA report and have attempted to minimize the degree of pollution that exists in the sound. It is clear, however, that there are at least some areas of the sound which are in violation of existing State and Federal water quality standards. Also, certain shellfish areas are closed due to excessive coliform levels which prohibit the sale of shellfish from these areas in interstate commerce.

I don't want to minimize the degree of pollution, but I want, instead, to point out that it is probably greatly underestimated.

Water quality standards are defined by certain technical parameters which have significance to technically-trained people. I think we all realize that this conference is being held probably not because the sound is another Lake Erie at the present time, but it's being held because many of the people living along the sound are unhappy with the condition of the sound as it now is. These technical parameters are not always understood or judged adequately by the layman who dislikes boating or swimming in soupy water.

Nils E. Erickson

Most of the comments that I have gotten from talking to people who make use of the sound have complained about not so much dissolved oxygen, or dissolved oxygen levels, or high coliform counts, but they simply dislike boating or swimming in soupy water.

To the layman, visibility or water clarity is equally as important a parameter as coliform count or dissolved oxygen.

Since the EPA report suggests that recreational use of the sound can be expected to increase greatly in the future, one might hope that one of the recommendations finally adopted would be that standards be revised to incorporate features which the public feels or thinks should be associated with nonpolluted water.

Turbidity standards, for example, are completely absent in the New York State standards, and they are very vague in Connecticut standards which state that no turbidity shall be present which impairs any usages assigned to a particular water quality class.

Now, if you use this type of reasoning, one could argue that since certain people take and presumably enjoy mud baths, there is no reason why a high turbidity in the sound should prevent swimming activity.

Turbidity can obviously be caused by a number of different factors. One is suspended algal growth or plankton species in the water, other suspended silt that has been raised by storm or dredging activities, and it's very difficult, as Dr. Squires pointed out, to really have a good idea of what is causing turbidity or what turbidity levels have been in the past.

There is very little scientific data that I have been able to come across that relates to this. Skindivers I have spoken to, however, have commented that on the average the average underwater visibility in the sound has decreased markedly in the past three or four years.

Now, scientists will tell you that this is very subjective, and it is very difficult to verify. I am just pointing this out as an observation that skindivers have made, and these are people who have been diving in the sound for a number of years.

These areas where the visibility has decreased are in technically nonpolluted areas or in areas not in violation of water quality standards now in effect. And this simply suggests to me the standards are not adequate to fully protect or preserve the recreational uses of the sound.

As I said, much of this increased turbidity seems to be due to algal growth, although again there seems to be no hard data on this. These are not blooms in the sense that they give rise to depressed or greatly variable dissolved oxygen areas, but they are blooms in the sense that they reduce visibility and, in part, color.

Increase in marine growth is indicative of excessive or at least increased level of nutrients in the sound. I had hoped that the report would reflect in its recommendations some consideration of the fact that any water body can assimilate only a certain total amount of nutrients before it starts showing symptoms of distress. To insure the preservation of this or any other water body, this total amount cannot be exceeded and allow discharge levels that have to be maintained at or below this total.

This approach has been adopted in some previous water quality enforcement conferences where both basin standards and effluent standards have been recommended and hopefully enforced. The total allowable basin inflow of some particular nutrient or some fraction thereof has been allocated among the various dischargers with little or no additional level of discharge permitted. Expansion or growth can only occur within limits allowable with increased treatment levels.

The Delaware River Basins Commission has seemed to have taken this approach with regard to the Delaware River with one parameter -- namely, dissolved oxygen, or, rather, BOD levels.

What has to be realized is that again any water body can only accept a certain total amount of nutrient. If you exceed that, you're going to start running into problems. If we want to maintain water quality suitable for recreation or for other purposes, we have to somehow come up with a program which limits the total amount of nutrient inflow to that quantity that the water body can tolerate, and this means then that this total amount will have to be divided among all the various dischargers that dump or discharge into that water body.

I have read the proceedings of previous conferences, and there has been a great deal of discussion among the various industries as to how this allocation should be allotted, and I suspect a great deal of hard "in-fighting" has taken place, each industry trying to be permitted to discharge as much as possible.

What is needed for this approach to be established is some idea of what allowable levels are, what are the permissible levels, and what amounts of what materials are currently being put into the sound.

The allowable levels can probably fairly well be "guesstimated," although some additional work is undoubtedly necessary. Information as to what is currently being put into the sound is certainly not available from this report and may, in fact, not exist as yet. As companies comply with the 1899 Refuse Act, however, and start submitting details of their discharges to EPA and the Corps of Engineers, details of present nutrient inflow should start becoming available shortly after the July 1 deadline for submission of this information.

This and other inflow data from municipal wastewater treatment plants should be sufficient to allow one to relate current nutrient levels found in the sound with current inflow and hence make possible a determination of total allowable discharge amounts which will have to be adhered to.

Now, as was indicated before, Dr. Squires is in the process of studying current nutrient levels in the sound, and he suggested that the sound has to be divided into regions, which is probably correct. But once information is available which provides information which gives information about the amount of nutrient material entering the sound, if you couple this with the hopefully steady-state concentration in these water bodies, one should be able to make a determination of the amount of decrease which will have to be put into effect to improve water quality.

Mr. Stein indicated yesterday that the primary responsibility for enforcing the recommendations of this conference would lie with the States. I think this is very unfortunate, since there is almost unanimous agreement among those who have studied the performance of the States in water pollution abatement activities that the States in general move too cautiously and slowly if they move at all.

Some of the conferences on some of the other water bodies in this country have dragged on for I would almost say 10 years, which is probably a little bit too long, but they have dragged on for a tremendous length of time, because the States for a variety of reasons have been unwilling or unable to put these recommendations into effect.

If the States really adopted their proper responsibility, there would not have been more than 50 interstate enforcement conferences in the past few years. And if the States had acted properly, we would probably not be here today.

This is not always due to lack of good will and endeavor on the part of the State water pollution control officials. It is more often due to inertia or shortsighted State legislative bodies who refuse to pass adequate legislation or refuse to appropriate adequate funds.

The New York State Legislature is currently performing in such a fashion by cutting funds for water quality activities.

I think what I would like to point out is that there is no need to wait for the States to enforce these recommendations. The 1899 Refuse Act has a July 1 deadline for submission of certain data by industries in application for permits to discharge into navigable waters. The decisions regarding final issuance of these permits are almost entirely in Federal hands, with the Corps of Engineers on the navigational matters and with EPA on water quality. State officials are not left completely out of the process, but if EPA were to take a tough stand, permits could be denied unless provisions were included that provided for abatement schedules.

Now, the Federal Government has been very insistent on trying to get the States to incorporate in their water quality standards an antidegradation clause, which usually includes a phrase which is substantially the following: "For new or increased discharges into high quality waters, the highest and best degree of treatment available under existing technology be employed to treat these discharges."

It seems reasonable, in view of the fact that this conference has been called, that EPA could very well insist on the best and highest degree of treatment available as a condition to issuance of these permits under the 1899 Refuse Act. Since these permits will be presumably issued sometime shortly after the July 1 deadline -- and Mr. Stein may be smiling there -- the Federal activities could be much more rapid than waiting for the States to --

MR. STEIN: Let me go off the record.

(Remarks off the record.)

MR. STEIN: Go ahead. Let's get back on the record.

DR. ERICKSON: A group in Illinois brought suit on Monday of this week, and presumably in Illinois Federal Court, to require the Corps of Engineers and EPA to insist on this requirement -- namely, the highest and best degree of treatment available under existing technology for discharges into Lake Michigan.

I see no reason why this suit should be limited to Lake Michigan. I believe we will consider pursuing this matter before other levels of EPA or perhaps other levels of government if EPA does not act on its own initiative.

I am also somewhat concerned about industries tying into municipal facilities, thereby apparently bypassing the 1899 Refuse Act. Mr. Curry yesterday mentioned that perhaps 50 industries or 50 industrial dischargers in Connecticut were eliminated. He didn't specify how these were eliminated. Presumably they didn't shut the plants down. But I suppose what this means is that they tied into municipal treatment facilities.

I think one could make a very good case that if municipal waste flow consists of, say, to pick an arbitrary number, 15 percent or more of industrial waste, it should really not be considered exempted from the 1899 Act. For your information the 1899 Act exempts liquid material which flows from streets or sewers.

Now, I am certain there are instances in the country where technically a discharge which is technically a municipal waste probably or might consist of 50 percent or more of really an industrial waste because industries are tied into the municipal waste plant. Why this type of discharge should be exempted from the 1899 Act I don't know.

Again, this is a question which might have to be settled in some other form of government, in some other level of government.

One final thing. The National Environmental Policy Act of 1969 requires that before Federal funds are spent on activities which will have a significant impact on the environment, a so-called 102 statement has to be prepared which provides, or hopefully provides, information about the environmental impact of this activity, this Federal activity, and tries to assess, first of all, the impact of these activities and what the alternatives are.

I have a very strong feeling that 102 statements should be prepared or should be a requirement for granting of Federal funds for construction of municipal wastewater treatment plants. I am thinking now particularly of the Long Island area where all of our drinking water comes from the ground.

The problem on Long Island is that if we take our drinking water from the ground, run it through industrial or home domestic use, and then discharge it after treatment out into the salt water body surrounding Long Island, what is going to happen and has been projected to happen on the basis of certain engineering reports is that the groundwater level is going to be greatly lowered, which would affect stream flow from the island. It would affect the existence or threaten the existence of the freshwater body -- the lakes and ponds that exist on Long Island.

One might very well question whether the environmentally most sound method of sewage treatment is one which discharges this treated wastewater out into the salt water bodies, and the environmentally most sound procedure might be to treat it to a condition which will allow recharge back into the underground aquifers.

If 102 statements were a requirement before Federal funding of municipal wastewater treatment plants, one might see a reversal of opinion on the part of county and perhaps State officials regarding the final disposition of wastewater.

I believe that's all I have to say.

MR. STEIN: Thank you.

Are there any comments or questions?

MR. KLASHMAN: Mr. Stein, I would like to make a few comments. My colleagues in the States don't need me to defend what they have been doing, but I think it is quite unfair to indicate that these two States have not been doing a proper job.

It seems to me that in New York State, which has been the prime example of a State moving ahead and trying to get the job done, the Governor of New York backed this $1 billion bond issue and then got an additional bond issue of $750 billion.

MR. GREGG: Million.

MR. KLASHMAN: $1 billion and followed by $750 million.

MR. STEIN: Mr. Klashman is so used to talking of Federal financing he can't get down into State funds. (Laughter)

MR. KLASHMAN: Again, the Governor supported a $1 billion program, then followed with $750 million. He then proceeded to scan this country to find what he considered one of the best people in the country to head up that program.

I don't know that he got the best one, but he got a very good one out of Kansas.

The State of Connecticut has put up $250 million of their money.

From my observations, these two States have been leaders in the field and I think have been doing a magnificent job under very difficult conditions.

I think in some cases that the difficulty has been that the support from certain sectors has not been there. It has been difficult for them to get the job done. But I don't think they have been dragging their feet at all.

DR. ERICKSON: I was not picking on New York State or Connecticut. I was thinking of the 50 States in general. New York State and Connecticut I agree have been probably two of the leading States in water pollution abatement activities.

But there have been at least two enforcement conferences involving New York State waters, one the Hudson River, the second one now in Long Island Sound. They I believe also participated in the Great Lakes conference, which probably dragged New York State into it simply because they happen to border on New York State.

There may have been additional conferences. Lake Champlain is also in New York State, and this has been the subject of another enforcement conference.

I am simply pointing out that New York State seems to have been sufficiently lax-- Well, the fact that we have had these four conferences indicates that New York State has not been performing entirely satisfactorily from the Federal point of view. I'm not saying --

MR. KLASHMAN: Again I don't think that is quite true. I think that what our intent is in having the Federal Government come in is not to take away authority from the State but to help the State in meeting its obligations. Sometimes it may look otherwise, but we are here to help the State to move this ahead.

I want to mention two other things. One is on the antidegradation statement from New York. If you read the statement carefully, it seems to me that you-- If you take out of context, as you did, what it says, it loses its meaning. What the antidegradation statement said that New York submitted --

DR. ERICKSON: Was the best available --

MR. KLASHMAN: But let's read the whole thing. What it says is that New York State recognizes that there are some waters that have a higher degree, a very good water quality, and they want to keep it that way. So what they said is the quality of these waters will be maintained.

Then they go on and say that there may be some cases where you simply can't maintain them, and in those cases they have indicated that they will work with the Environmental Protection Agency. In other words, they have committed themselves to saying, "We are not going to do this unless you guys go along with us." That is what they have said.

Now, it seems to me that, obviously, if you are going to have some type of a facility, if there is no other way out but you have got to put some type of facility into a very high quality water, what they say is you have got to put in the absolutely very best treatment that is available.

I can't see your point.

The last point I wish to make, sir, --

DR. ERICKSON: Well, the point is that a number of citizens on Long Island are concerned about the groundwater problem. The county officials -- and I cannot really speak for the State officials -- but seem to be going along with sewage treatment processes which were developed some 20 or 30 years ago.

If this is the best degree of treatment available, then I really wonder what the R & D program of EPA has been doing. I have spoken to your R & D people down in Washington. They have indicated that some of the experimental R & D programs in their opinion can now be put into practice, into operational use, in municipalities.

The trouble, it seems to me, is that the granting offices are not insisting that some of these more advanced wastewater treatment facilities be actually put into use in the field. There seems to be a big time lag between getting a plant out of the R & D stage into the actual operational stage in the field. And the county people just seem to be unwilling to adopt any of these new approaches.

MR. KLASHMAN: I'm not going to comment on your last remark. I just would like to make one other observation.

I have a copy of the 1899 Act here. Are you a lawyer?

DR. ERICKSON: No, I'm a chemist.

MR. KLASHMAN: Oh, you're a chemist? The thing is I'd be most grateful if you would take section 13 and explain to us how this means that under the 1899 Act we could get into industrial wastes in municipalities, because our lawyers I understand have --

MR. STEIN: Lester, that's an open question. We're considering that now. I don't know that that is going to be productive or we're going to come up with an answer.

MR. KLASHMAN: Strike that question from the record.

DR. ERICKSON: Could I comment on it?

MR. STEIN: Go ahead. I think you made your comment on it. Let me say that obviously we have a question whether the industrial wastes going into a municipal system come within the purview of the 1899 Act. I think the drafters of that Act certainly didn't have this problem in mind at all.

There are people who have opinions on both sides of this, and I suspect it will ultimately have to be decided by the courts.

DR. ERICKSON: I suspect it would also. The thing that disturbs me is that the question of mercury pollution, discharge problem, into the Great Lakes was-- The mercury discharges were finally brought under abatement not by making use of the water quality standards but making use of the 1899 Refuse Act.

MR. STEIN: Let me ask you there: I don't know-- By the way, I did this, and I have responsibility for both sections. You read the law here. It takes us six months after this to have a hearing, then six months after that to go to court. Under the 180-day notice and standards violation under the law we have to give six months.

When we had this mercury situation and I got the evidence, the choice was to take an act where we could get into court and get action immediately. In other words, you are suggesting that I should have taken a course which would at a minimum take half a year or a year instead of taking a course of action where I could get into court immediately and get that abated?

DR. ERICKSON: No, the point is that if one of these industries were making use of a municipal facility, you could not have employed the 1899 Act to bring about abatement.

MR. STEIN: Why do you say that? On the basis of saying it we did, and we didn't have to go to court. We went to the industries, and there were several industries which were discharging into municipal systems. And they stopped. The authority that I went to the industry with was the 1899 Act.

Now, I know your organization is concerned with litigation. But I know possibly you talk to our research people when you come down and get advice on what they can do and what they can put in and what they can't. But you might talk to our litigation people to find out what we did, and this is what worked, and this is what cut the mercury down.

DR. ERICKSON: So you're saying then that the 1899 Act was applied to municipal waste?

MR. STEIN: I'm saying that we did not go to court.

But I went to the industry. And because the industry stopped it, we didn't have to go to court. But I went to the industry and told them that we would, in my opinion, take an action for the mercury discharge unless they stopped putting it in the municipal sewers, and they stopped.

DR. ERICKSON: This seems to be an interesting precedent action on your part -- threatening the use of the 1899 Act against municipal waste.

MR. STEIN: I don't threaten anyone. I just make statements of what we are going to do.

MR. GREGG: May I make a comment?

MR. STEIN: Yes.

MR. GREGG: You mentioned turbidity several times. Have you seen the reports of the National Technical Task Committees on water quality criteria published in 1967 or 1968? There are some criteria in there on turbidity, aren't there?

DR. ERICKSON: That's the green-backed one that you're talking about?

MR. GREGG: Yes.

DR. ERICKSON: I have read over the report quite a long time ago, and I don't recall what it says. But the New York State water quality standards for sailing waters make no mention of turbidity.

I know that the Water Quality Office has contracts out with various groups trying to find out how these existing water quality standards can be more closely interrelated with standards and quantities, factors which the public recognizes or thinks imply clean water.

Now, how do you tie in technical measurements such as dissolved oxygen, coliform counts, and various other parameters with other parameters which the public thinks are suggestive or indicative of clean water?

Certainly I think that to the general public water visibility and color are very much more important than coliform. Coliform may hurt them, and the color and turbidity may not, but it's the color and turbidity that he recognizes as being indicative of clean or dirty water.

MR. GREGG: All I'm suggesting is that these criteria give you some handhold from which you can start in saying whatever you want to say to the conferees about this. There are some objective measurements of turbidity in there. If you can refer to those, it might be easier for the conferees to respond.

MR. STEIN: Mr. Metzler.

MR. METZLER: May I just make two statements. One is for our friends from Connecticut I want you to know in New York since the end of 1966 we have placed $2.1 billion worth of sewage treatment works under way. We have about another $1.4 billion to go. So I say this primarily not defensively in any way, because the State was late getting started. Nor is there any doubt about it we should have been doing this 20 or 30 years ago. But I don't want to be held accountable for the sins of my predecessor father, grandfather, great grandfather.

Then I want to make an offer. There are six polluters on the Long Island Sound in New York. We have identified these. We have each one of them under schedule. And I would welcome an opportunity to go over the schedule with you to see if you can point out any place that we can speed up this schedule or get treatment sooner.

DR. ERICKSON: Fine.

MR. PELOQUIN: Mr. Chairman, I would like to make one observation on the criteria supporting Mr. Gregg's comment lest people misinterpret the comment.

We very often do not consider use by people as the most sensitive use. In considering the aquatic chain, the aquatic life in the stream, there are certain times, certain periods, certain species that are much more sensitive to levels of turbidity and other factors that would overrule the preference or the use by the public.

By using a statement such as has been used -- the statement adopted by Connecticut is essentially that developed by the New England Interstate -- this requires each stream be evaluated on its own merits and on the basis of what the most sensitive use is for each body of water. So the numbers would have to be established on that basis.

DR. ERICKSON: I think what I wanted to point out was if recreational use of the sound is to be one of the important future uses of the sound, then the water quality standards should be designed around criteria or factors which are important to people making recreational use of the sound.

If some other small section of the sound should best be used for industrial use and not for recreational purposes, then the criteria can be completely different because --

MR. PELOQUIN: I agree. But the language of the standard does allow this flexibility. This is why this language was developed. And people may not be the most sensitive user.

DR. ERICKSON: I would just like to make one final statement. Several months ago I attended the Interstate Sanitation Commission hearings on its proposed revised water quality standards for waters under its jurisdiction, and one of the things that I was strongly in favor of was year-round disinfection, incorporating in those standards requirement for year-round disinfection. This is one of the recommendations of the report.

I wasn't successful in persuading the Interstate Sanitation Commission to adopt this, but I would very much like to see this recommendation made by the conferees that year-round disinfection be employed.

MR. STEIN: Are there any other comments or questions? If not, thank you very much, Mr. Erickson.

MR. METZLER: That concludes the New York witnesses.

MR. STEIN: Let's turn back to Connecticut.

Mr. Curry.

MR. CURRY: Apparently our Connecticut people are enjoying the party. There are four more now who have come to my attention who would like to be actors.

Mrs. Boyle.

STATEMENT OF

MRS. HOWARTH P. BOYLE

GREENWICH ENVIRONMENTAL ACTION GROUP

OLD GREENWICH, CONNECTICUT

MRS. ROYLE: My name is Esther Boyle, and I reside in Old Greenwich, Connecticut.

MR. STEIN: Just a moment, Mrs. Boyle. Can you hear back there? Will you try to speak up?

MRS. BOYLE: My name is Esther Boyle. I reside in Old Greenwich, Connecticut, and I represent the Greenwich Environmental Action Group. We employ no experts, but we do seek an exchange of information and opinion between the lay public and those who are charged with protecting us.

First of all, we wish to express our thanks to the EPA and Mr. Ruckelshaus for calling this conference and to the State and regional agencies for allowing the public to express its concern about Long Island Sound.

We all know that Long Island Sound is polluted, and we all know what causes this pollution. We also know that, despite the many laws that have been passed -- and resurrected -- and the agencies that have been called in and newly formed, and despite the billions of dollars that have been spent, next to no improvement has been made, and in some areas there is a worsening of the situation.

What we want to know now is why.

The Greenwich Environmental Action Group respectfully submits the following recommendations for your consideration to combat already existing pollution:

Our No. 1 concern is the sanitary sewage plants which discharge to both the East River and Long Island Sound, particularly west of New Haven. We would like to see them upgraded to at least secondary treatment and this upgrading to be completed by 1974.

But, most importantly, in the meantime these plants should be required to make immediate interim improvements to chlorinate throughout the year and to keep their present facilities in good working order.

We have 1 million coliform counts in the river in our town.

No. 2, we recommend that the water quality standard for the sound and all its tributaries be set at "A," and that effluent standards that meet this requirement be set for all wastewater dischargers. We feel the discharge of toxic metals and chemicals should be completely prohibited and that some -- phosphorus and DDT, for example -- should be banned from use.

The attitude that a river or sound is a sewer must cease. The receiving body of water must no longer be considered a part of the waste treatment process.

As taxpayers, we also have grave doubts about the wisdom of allowing industrial wastes to be introduced into municipal sewers, even after pretreatment. It seems to us that waste treatment is part of the cost of doing business. Industries, we feel, should not be allowed to use water in such a way as to render it unfit for use by others or threatening to the ecology of the area.

No. 3 in our concerns: We recommend that the use of designated dumping grounds in Long Island Sound be re-evaluated. Municipalities and others, we feel, should find new methods of disposing of garbage, sewage sludge, urban renewal rubble, incinerator ash, harbor dredgings, etc. Perhaps they should be encouraged to take a new look at the very processes which produce these wastes.

The addition of new pollution sources to an already polluted system is foolhardy. We are dismayed to hear that there are three such sources proposed or already under way.

First, five or six -- today I hear seven -- new nuclear powerplants and at least one new fossil fuel plant have been proposed for this area. This would add thermal pollution, the possibility of radioactive wastes, and the threat of more oil spills in the sound. The HELCO plant proposed for Stamford Harbor would use over 1 million gallons of oil a day, to be unloaded from oceangoing tankers. We seriously question permitting any more powerplant construction in the western sound.

This part of my speech you do not have a copy of, but I will submit this to you.

Greenwich citizens and people from the surrounding areas are seriously alarmed about the environmental impact that the 800-megawatt powerplant proposed by HELCO for Stamford Harbor will have on all of us. We concur with recent State and Federal reports on the problems of power siting which seriously question the advisability of burdening heavily populated and congested areas with a large power generating unit. We won't talk about the nearly 200,000 pounds of sulfur oxides, the six tons of particulates, and the 125,000 pounds of nitrous oxides the plant will emit into our air daily.

Let us concentrate for a minute on the 500 million gallons of coolant water the plant will use each day. This water will be taken out of a sewage-and-chemical-laden harbor and raised 15 to 20 degrees and then be emitted into the local fishing, swimming, and sailing areas off Greenwich and Stamford.

The growth of heated bacteria can only be guessed at, but we believe it poses a real problem.

In addition, slimicides and other chemicals for the protection of the boilers will be added in unknown quantities to the already chemical-laden waters of the sound.

All of this will be emitted from a 12-foot-wide tunnel blasted under the harbor, ending about a mile out in the sound. This tunnel will also be used for the oil pipes leading to the plant from an offshore docking facility.

The docking facility, a concrete platform 300 feet long and 40 feet high, will receive oil from 600- to 700-foot tankers to supply the 1.2 million gallons of oil the plant will burn daily. Although the exact location for this docking facility is unknown, we have attached a map to our statement which will give you a general line on which it must be located due to water depth.

It will be about a mile beyond the Stamford lighthouse right in the middle of the heavily used sailing, swimming, fishing, and clamming area. The clams have to be washed, of course, before they are eaten -- washed in clean water.

Even a small oil spill would ruin the recreation areas depended on by thousands of people. As many as 20,000 people use the beach at Greenwich Point, one mile from this docking facility, on weekends. The combined populations of Greenwich and Stamford number about 200,000 people, most of whom depend on Long Island Sound for their summer recreation.

We believe that a policy for powerplant siting should be established for the sound which takes all the environmental hazards into consideration, and until this policy is decided that no new power generating units should be permitted. A temporary moratorium may be necessary since there is presently no licensing authority for fossil fuel plants.

Our second concern under new sources of pollution is the new permit system which we have heard discussed being reactivated by the Army Corps of Engineers. We are at a loss to see any value in it. On the contrary, it seems to us it might slow down the already dragging abatement proceedings.

And, last, the bridge linking Rye and Oyster Bay, New York is the latest insult added to the multitude of injuries the sound has received. Plans to start work on the span are scheduled for this fall. Many groups have ideas about what to do with the sound -- dam it, make it a fresh-water lake, use it as a dump, as a cesspool, drain it and build a new city. We have an alternate suggestion. We believe the sound belongs to all our citizens. Might not it best serve them if it had the protected status of a national park?

Thank you.

MR. STEIN: Thank you.

Are there any comments or questions?

MR. CURRY: While we are in the Greenwich area, the President of the Byram River Pollution Abatement Association has also indicated a desire to say a few words.

MR. STEIN: Pardon me just one moment. I think we have attachments here to Mrs. Boyle's statement. Can we use these as exhibits rather than appearing in the record?

MRS. BOYLE: They are for you.

MR. STEIN: They will be attached as exhibits to the record and available for inspection at our regional office.

MRS. BOYLE: Thank you.

(The attachments to the statement of Mrs. Boyle were made exhibits and are available for inspection at the New England regional office of EPA.)

STATEMENT OF

ALEX HAUGHWOUT

PRESIDENT, BYRAM RIVER POLLUTION ABATEMENT ASSOCIATION

BYRAM, CONNECTICUT

MR. HAUGHWOUT: My name is Alex Haughwout.

Mr. Stein, conferees, ladies and gentlemen, we appreciate this meeting that Mr. Ruckelshaus has set up and the opportunity to speak.

We have a broad question: Is the Federal Government able to act on our local pollution problem or will it have to be solved by private citizens doing what the government is paid to do?

Four million gallons of untreated sewage is discharged into the Byram River every day.

Three hundred thousand gallons of dirty effluent contaminated with oil and dirty felt fibers and barrels of sulfate are dumped by one industry into this river each day at a point where the river is crystal clear.

A single plant in Port Chester has been discharging more than one barrel of waste oil per day into this stream, to say nothing of heavy metals like zinc, cadmium, iron, chromium, and copper in concentrations up to 4,000 ppm.

As President of the Byram River Pollution Abatement Association, otherwise known as BRPAA, we are a citizen action group concerned with water pollution in the Byram River which flows into Long Island Sound at Greenwich, Connecticut. We publish a newsletter, copies of which you have. We have a mailing list of 1,000 people. Some of you may have heard of us before.

It will take only 6 minutes to expose a situation that will amaze you.

We are interested in stopping Greenwich polluters as well as New York polluters. The major polluters are the Russell, Burdsall & Ward Nut and Bolt Company and the sewer plant in Port Chester and the GAF Corporation of Greenwich. Today I will concern myself with only two of these -- the Port Chester sewer plant and the GAF Corporation. There are people in this room who will not like what I have to say.

In 1961, Mr. Tom Glenn of the Interstate Sanitation

Commission started to take vigorous action against the village of Port Chester because of the raw sewage discharge into the river. There are a slew of court orders still standing from his activities over the last nine years, but we still have 4 million gallons of raw sewage per day.

But all is not lost, because a new plant is being designed. It is scheduled to be finished in late 1973. This date will never be met. I predict that unless this situation is investigated it won't be finished in 1975, and I'll tell you why.

First of all, I have attended two meetings at White Plains, Westchester Department of Public Works, to determine the progress of the new plant. At the first meeting on January 18th, I was told by the Commissioner that the design of the new plant was 15 percent completed. At the next meeting, 36 days later, the design was 20 percent completed. Someone testified today that the plant was now 25 percent completed.

Don't forget this project was rated top priority. Based on progress to date, design will be completed in two years. After this the job can be let out for bids. Based on this and with a construction period of 30 months, the plant might be completed in 1976 -- as long as no one rocks the boat.

But try this for a complication: The original design considered updating the Port Chester primary plant and piping the effluent from this primary plant to a new, large secondary plant that was to be built next to an updated primary plant in Rye, three miles away. The existing long outfall at Rye was to be used for the secondary effluent discharge. This design made a lot of sense.

Now, the Rye plant is located in a marsh that has been used and is being used today as a dumping ground. Additional land was required for the secondary plant. With some pressure politics and easy agreement from Westchester County Department of Public Works, the additional land was not made available, not even by condemnation. This called for a big design change.

Now we have a situation where the design is changed from a single, large, new secondary plant to two smaller secondary plants, one in each town, and another force main to pump the sludge from Rye back to the Port Chester plant. This is an inherently bad design and represents a large cost increase.

BRPAA dug up this historical shenanigan last fall and brought it to the attention of the mayor of Port Chester who had just taken office. We got him to ask for a meeting at the Westchester Department of Public Works. At this meeting, the mayor and I asked five times for the cost differential between the two designs. All we could get was double talk, with an outright refusal by the officials to look up the actual cost differential, which they had.

Research indicates that a difference of about $2.5 million is being paid for a design that is not as good as the original and will cost more to operate each year for the next 30 years, or the life of the plant.

The Byram River Pollution Abatement Association is really not concerned with the $2.5 million that is being thrown away, because this is not our money. But we know that a taxpayers' suit is imminent and this could stop the clock and cause a delay beyond the 1976 date that we mentioned before.

Gentlemen, we have had untreated sewage going into this river at an average rate of over 4 million gallons per day for 10 years. 1976 will make this 15 years. This confused mess needs attention.

Now, let me address the GAF Corporation pollution problem. In 1967 the Connecticut Water Resources Commission gave GAF Corporation an order with a timetable to stop pollution. Since that time, the Commission has granted one postponement after another. GAF has been dumping 300,000 gallons of highly polluted water per day into the Byram

River for years before 1967 and since that time without abatement.

The last postponement granted by the Water Resources Commission called for the construction to start two weeks ago, March 30th. Believe it or not, we called the Resources Commission and they said another postponement was not required because the GAF Corporation was finally in full compliance with their order. Construction of abatement facilities had started.

Do you know what they consider the start of construction? An invoice from GAF showing that they purchased a pH control. The evidence of construction consists of a paper invoice. GAF has stated that they still haven't received the control.

Is this collusion? This is all that the plant is required to do to abate pollution -- a pH control?

The U. S. Department of the Interior has said in a study of the Byram River that the GAF Corporation "is the single largest polluter."

This is a recent sample of water taken down below the plant (exhibiting bottle of water). It is full of fibers. Will a pH control solve this?

A representative from the Water Resources Commission came down to Greenwich last December and testified that the town of Greenwich had agreed to have its sewer plant accept the GAF effluent. This is positively not true. The town has not agreed to this.

At a representative town meeting last February 8th, the town representatives voted overwhelmingly to require GAF to abate pollution with the stipulation that if they did not the health department should order the plant closed down as a last step. The vote was overwhelming. Only 15 votes were against the measure, 10 percent.

How could the Water Resources Commission have acted against the public interest? They have taken a strong stand in favor of the polluter. We ask that the Federal agencies step in and run this thing down. If something is not done, there is likely to be a court test that will, among other things, pinpoint the blame.

There is a book recently published by Joe Sax. He is a professor. He discusses a theory called the "insider perspective," where each move and action is the "right move" and "will solve the problem" and is "the last move required" -- but in actuality nothing gets done.

In the case of GAF Corporation, we have wasted 3-1/2 years. In the case of Port Chester, we have wasted 10 years.

Our association has talked over these problems on the industry level, the town level, the county level, and the State level. In each case we seem to have stalled out. We now plead on the Federal level. We should like to have a meeting with the Federal Water Quality Commission within the next 30 days and have the opportunity to expose our evidence and detail the laws that we think have been broken.

MR. STEIN: Thank you.

Are there any comments or questions?

Mr. Klashman.

MR. KLASHMAN: Do you have a copy of your statement?

MR. HAUGHWOUT: Yes, sir.

MR. KLASHMAN: Could I have a copy, please?

MR. HAUGHWOUT: I will give it to you in a moment. I have to make a few changes.

MR. KLASHMAN: On your meeting, we would be very happy to have you come in to visit us next week, if you like, if you would call my office. Or better still, Mr. Fitzpatrick, will you write to him?

Mr. Fitzpatrick will work out a suitable date for you. If you will come in, we will be glad to accommodate you.

MR. HAUGHWOUT: Thank you.

MR. KLASHMAN: Mr. Curry, can we get any clarification of this business about GAF?

MR. CURRY: The way to treat GAF wastes was to combine them in the municipal system, which was considered the most satisfactory way to treat them with the necessary pretreatment. Their schedule has been set up, and there have been delays in the extension of the sewer system up to Glenville, which is a relatively long extension.

If there are any delays, the delays are presumably for purposes of some local scheduling or some difficulties in getting the appropriations.

We have no indication it is not going to be built. We have every indication that it is and every indication that GAF is ready to connect with the necessary pretreatment when it is.

MR. HAUGHWOUT: Mr. Curry, the original order in 1967 stipulated that the GAF Corporation should connect either with the town sewer or pretreat the stuff sufficiently so they could put it back in the river. This was a choice. The election was made to put it into the sanitary sewer, not by town agreement. This provided them three years' delay.

The GAF Corporation secured an independent research of their effluent by Metcalf and Eddy, a very reputable firm. In looking over this report, I find no comment whatsoever -- for instance, as one single point here -- about the sulfate problem that it might have on the local plant. They are putting barrels of sulfate in the water every day. This has a very deleterious effect on concrete. The whole Grass Island plant is constructed of concrete, as well as the sewer mains.

This in itself I believe would make it impossible to be accepted by the sewer plant. And I have supporting technical information.

MR. CURRY: He says he disagrees with Metcalf and Eddy.

MR. STEIN: May I make a suggestion? I think we have an allegation, if what you say is so, of a violation -- I am not speaking of the State -- of a Federal law, and we can take action.

Now, I don't want to wait a month or anything of that kind. If you have this -- and you seem to have this pretty well in mind -- we can arrange subsequent meetings. How about your seeing Mr. Fitzpatrick now, giving him the material? And I'd like to invite a representative of Connecticut to sit in with them at the same time.

If there is a violation of the Federal law, you can be sure we are going to get going.

But I would suggest that that's the way to do this. Do you want to take that up with Mr. Fitzpatrick now?

MR. HAUGHWOUT: I would be glad to.

MR. STEIN: Let's get started. And if you have a map of Connecticut, we would like to have him in with that.

You can be assured if in the conclusion of Mr. Fitzpatrick or Mr. Klashman there is a violation of Federal law, they will get me a recommendation and I will start that action immediately. But we are going to consult, as we do in all these cases, with the State of Connecticut and get their point of view too.

MR. HAUGHWOUT: May I ask Mr. Curry what constitues start of construction? Is the invoice that GAF Corporation showed sufficient?

MR. CURRY: We felt that that would be their contention. How do you start construction to a sewer that does not exist? The only thing that the man probably could have done would be to have a contractor under contract ready to start construction, or he could have made the application for equipment, which in many cases is very important because of scheduling of receipts of equipment.

The first step you have to take is order your equipment ahead of time so it will be available.

I'm not sure it was just a pH meter. I don't know.

MR. HAUGHWOUT: That's all it is.

MR. CURRY: Well, if you know, I don't. I don't know that.

MR. STEIN: By the way, no one is going to be cut off, but I would suggest with a complaint like this it might be more productive if we got this in the kind of meeting I am suggesting here rather than letting this go back and forth.

What we want to do is determine if there is a violation of a Federal law. And if there is, you can be assured we will take appropriate action.

MR. CURRY: Sylvia Dowling would like to speak.

STATEMENT OF

SYLVIA DOWLING

STAMFORD, CONNECTICUT

MRS. DOWLING: My name is Sylvia Dowling. I'm from Stamford. Before I read some very brief remarks from several Stamford and Norwalk organizations, I would like to make a few comments of my own.

I was at your meeting yesterday, and I'd like you to know that I enjoyed it. I learned a great deal, and I liked your jokes.

However, I did take issue with some of the remarks made by speakers during the latter part of the meeting about the bureaucrats and about what this council could do or could not do or wouldn't do. And I would like you to know that this view is not shared by me or most of us in Stamford.

We need you. You're all we've got. (Laughter)

We found in Stamford --

MR. STEIN: That's what I used to say about the army. When people complained about it, when I was in it, I used to say, "I complain too, but it's the only army we've got."

MRS. DOWLING: Well, at any rate, we found in Stamford -- and I'm beginning to learn that this is true in many parts of the country -- that we can't depend on local politicians to stop the abuse of our environment.

In Stamford we have a mayor who made two promises before he was elected. He promised he'd clean up Stamford Harbor, and he promised he would not let Stamford tie in its much needed sewage treatment plant with Darien, something that had been in preparation since 1967.

He kept one of his promises. He successfully fought every effort to keep Darien from tying in with Stamford, and, as a result, the Stamford Harbor is dirtier than it has ever been.

Of the 11.5 million gallons of raw sewage that go into our primitive primary treatment plant daily, about 5.5 tons of partially treated solids pour into the harbor every day. The water is so polluted that, according to the president of the largest marina in Stamford and probably in this part of the country, if you leave a manila line hanging in the water it will be rotted in two or three weeks.

I happen to live on the harbor -- and sometimes in it during a hurricane -- so I know what this is like. I know how bad the harbor really is.

I am also a writer, and I did a magazine story on our mayor's efforts to "clean up" the harbor. In my research I discovered what most of you know -- the very valid reasons for the sewage treatment tie-in. That article has not been published yet, and the only information the people in Stamford have is what the mayor has told them.

He has given people the impression he is an engineer. He is not. He has even said he was on occasion. He has misinformed the public and given only one side of the issue.

Now, I'm sure most of you know about the tie-in, and if you don't I'll try to explain it to you. But I suspect you do know or Mr. Curry could probably show you his scars.

But, at any rate, there have been four separate engineering studies made, and all of them recommended the tie-in and said that the water quality could be maintained with Stamford tying in with Darien. But the mayor said this was wrong, and he said this before he even had seen the evidence. He said it during his campaign.

When he became mayor, he evidently did not have files that substantiated all the engineering claims, and I guess the State Water Resources Commission sent it to him but he still said they were wrong. He accused-- Or he said some of the engineering reports were slanted. He accused the State Water Resources Commission of trying to outsmart him and of being political and arbitrary -- and even called Mr. Curry a stubborn jackass on the radio.

Some of his antics have been like a comic opera.

At one point he said Stamford had never officially indicated its desire to tie in. Another time he blamed the former mayor for committing the city to the tie-in without approval of the city board. When this was denied, he brought in reporters and showed them about 30 pages of file about the tie-in to prove his point, but they couldn't find any evidence.

They confronted the mayor with this, and the mayor said, "Well, the other mayor didn't speak against it."

So at another time he argued that the State order never mentioned the tie-in and therefore Stamford was not obligated to go ahead.

But the high point of the entire issue was in a letter he wrote to the Water Resources Commission in which he said, "The fact that we were proceeding with the design for the tie-in should not have led you to the conclusion that we were agreeing to take Darien's sewage."

Then in November he said if the Republicans were elected the Republicans would make sure that we wouldn't have to have this tie-in.

In January, when the Attorney General served papers to the mayor to comply with the law, he asked for an extension of the court action, saying, "I have evidence of skullduggery, but I have no proof, so I cannot tell you about it now."

Among the other things he told people -- and I think this is the cruelest part of all -- he said that the sewer tie-in would necessitate digging up our best park. Well, this was simply not true, as you know better than I. The sewer lines can go anywhere the city wants them. They do not have to go through the park.

And he has consistently said if he is told by the Federal Government in Washington that the city would not get funds to build the plant he would drop the case. Mr. Klashman I know has informed him from the Federal office in Boston that he wouldn't get the funds, but the mayor insists on hearing it from Washington. So my plea is to you: Will somebody please drop him a letter from Washington so we can get going with this much-needed sewer at this point?

MR. STEIN: If we drop the mayor a letter, it may not be on funds. He may not like this letter. We have other kinds of letters we drop sometimes.

MRS. DOWLING: At any rate, now I would like to read a prepared statement. I have been authorized to speak for the Shippan Point Association, the Davenport Drive Association, the Burwood Heights Association, and the Coalition of Neighborhood Associations -- homeowner groups representing over 7,000 families.

I am also speaking for the Talmadge Oyster Company of Norwalk and, although I'm a Republican, I am authorized to speak for the East Side Democratic Club and the North Stamford Democratic Club. (Laughter)

These groups are opposed to the 800-megawatt power plant proposed by the Hartford Electric Company (HELCO), a subsidiary of Northeast Utilities.

We don't question the need for more power. We do question the location of a plant of this magnitude in the most densely populated residential and recreational area in Stamford. It will be one of the two largest in Connecticut.

It is planned for the Stamford Harbor in a zone that permits only 90-foot structures. It will be 200 feet high, equal to a 20-story building. There are no buildings that high in Stamford.

The plant will burn, according to HELCO, 1.2 million gallons of heavy fuel oil a day. That means 438 million gallons of oil a year will have to be brought through one of the most active sailing and racing areas on the sound.

The unloading dock is planned about two miles from the plant right in the center of this boating area. It will be large enough to accommodate oceangoing oil tankers. It will protrude 30 to 40 feet above the water, spoiling the view of probably the largest and finest shoreline residential communities on the East Coast -- those of Greenwich and Stamford.

Does a power company have the right to despoil the most expensive real estate we have left?

Pipes from the plant will necessitate blasting 200,000 cubic yards of bedrock under the harbor for a tunnel. There are 160 acres of shellfish grounds there used by the Talmadge Oyster Company of Norwalk for seeding.

The proposed plant will use 300 to 400 thousand gallons of Stamford's polluted harbor waters a minute and then send that heated sewage-laden water back into Long Island Sound. That's 500 million gallons of thermal pollution into the sound every single day.

According to the U. S. Department of Health, Education, and Welfare's official figures, a plant this size, burning the amount and type of oil HELCO will use, will emit 34,383 tons of sulfur dioxide a year.

A HELCO official said he "hoped" an efficient air scrubber would be available by the time the plant is built in 1976.

Whether a plant this size is needed in a city of 110,000 is for the experts to decide. But the effect this giant will have on our environment and our lives is our province. For that reason we are asking for an impartial power sites evaluation council and a moratorium on this plant until we get the council.

We can no longer accept studies made by power companies on the effect its plants will have on the environment. We have seen the effect they have had on our environment.

In Stamford, our mayor, Julius Wilensky, has already gone on record (before any studies have been made) praising HELCO for its new "clean" plant. When Wilensky was told that the new plant would send 500 million gallons of thermal pollution into the sound every day, he told the news media: "I'm not going to talk about thermal pollution. HELCO told me they would take care of it. It's none of my bloody business."

For the record, Mayor Wilensky's new executive aide was personnel administrator for HELCO for the last six years.

We feel there must be a better balance between public and private interests and between the need for more power and the even more urgent need of saving our environment. We are ready to accept some of the financial burdens this may bring.

Now, sir, may I ask you gentlemen a question?

MR. STEIN: Surely. Go right ahead.

MRS. DOWLING: I'm sure you have heard of it, and I wondered what your opinion was about it -- GE's new cooling tower that will only be 60 feet high.

MR. STEIN: I don't know if any of these people want to answer, but I will speak for myself. We can get you one of our experts. The difficulty that any of us has in this field is speaking about a proprietary product. The problem that I have as a regulatory agency -- and most of these fellows have their regulatory hats on -- is that I do consult with GE and other companies very, very frequently, and I do not think we talk in terms of an individual company's product.

MRS. DOWLING: I see.

MR. STEIN: We are really under an inhibition.

MRS. DOWLING: I understand.

MR. STEIN: All right. Thank you.

MRS. DOWLING: Thank you very much.

MR. KLASHMAN: Mrs. Dowling, when you were talking about the Stamford-Darien joint municipal facility, were you talking for yourself or for a group?

MRS. DOWLING: No, I prefaced my remarks by saying I was speaking for myself.

MR. KLASHMAN: Right. And is that prepared -- the text that you gave there? Or were you talking --

MRS. DOWLING: Partly. I had notes. But you're certainly welcome to my notes if you can read them.

MR. KLASHMAN: It might be helpful.

I might say, Mrs. Dowling, that our Commissioner did reply to Mayor Wilensky quite recently indicating that he saw no difference of opinion between what I had told the mayor and what the Assistant Commissioner for Operations had told the mayor.

MRS. DOWLING: In Washington?

MR. KLASHMAN: That's right. And that the mayor had to meet the State requirements. That is, he had to go along with what the State was telling him to do unless there were some other facts that we didn't know about.

And so I don't think that the Commissioner specifically made the statement that I did to the mayor, and that was that if they didn't go together, from the information I had, unless something else came up that I didn't know about, that they wouldn't get a grant, the way the project appeared to us at that time.

I don't think that the Commissioner said that to the mayor, but this program is delegated to the regions, and so --

MRS. DOWLING: I understand.

MR. KLASHMAN: -- the Commissioner simply doesn't get involved in that type of judgment.

MRS. DOWLING: I understand it, but the mayor doesn't seem to.

MR. KLASHMAN: Mr. Curry, can you tell us what the status of this project is? Is there anyone from Stamford here? Can you tell us what the status of this project is?

MR. CURRY: Apparently the mayor does not recognize the similarity between two echelons of Federalees. He does not realize -- from my point of view I would assume -- that the type of language in Commissioner Dominick's letter is his way of overstating, above-stating, your letter. It's not so understood by the mayor.

MR. STEIN: Are there any other comments?

MR. KLASHMAN: Do you have them in court now?

MR. CURRY: The papers were drawn last week.

MRS. DOWLING: They haven't been served yet, according to our paper.

MR. KLASHMAN: Well, I can only tell you that Mr. Curry and I are very much concerned about this particular problem -- I probably as much as he. And we will continue to pursue it vigorously.

MRS. DOWLING: I would also like you to know that those who understand it are certainly sympathetic to your point of view.

MR. KLASHMAN: Well, the Federal Government I hope will be doing more than just talking about it.

MR. STEIN: Do you have any more, Mr. Curry?

MR. CURRY: Yes. Mr. Hill, Director of Environmental Sciences and Technology, Center for the Environment and Man.

STATEMENT OF

RICHARD HILL

DIRECTOR OF ENVIRONMENTAL SCIENCES AND TECHNOLOGY

CENTER FOR THE ENVIRONMENT AND MAN

HARTFORD, CONNECTICUT

MR. HILL: I am Richard Hill, Director of Environmental Sciences and Technology at the Center for the Environment and Man in Hartford, Connecticut.

I would like to take this opportunity to quickly respond to the question raised yesterday and again today concerning research priorities for Long Island Sound.

For the last two years, the Center has been assisting the Nassau/Suffolk Counties Planning Board to develop a marine resources information system. This information system will assist the board in development planning and will assist the local Long Island communities in their numerous marine resources-oriented decisions.

A significant element in this effort has been the identification of marine research projects that need to be undertaken. In addition, the Center has been engaged in numerous oceanography, meteorology, water pollution, and air pollution research programs for EPA, the National Science Foundation, the National Oceanic and Atmospheric Administration, the Corps of Engineers, the electric utility industry, and others.

I want to answer the research priority question twice, the first time in a somewhat evasive manner and the second time more directly to the point.

The first answer is that a long-range plan must be developed for coordinated research in Long Island Sound by the various academic, governmental, industrial, and independent research groups. This plan must:

(1) identify the objective for the research

program;

(2) develop the overall technical framework within which the research will be conducted;

(3) inventory pertinent research conducted to date and research now under way;

(4) develop the scientific work statements, budgets, and schedules for the monitoring and research projects needed to meet the objective; and

(5) establish and maintain a cooperative Long Island Sound Data Center to satisfy research and operational needs.

More specifically, the mission of an applied research program in Long Island Sound should be to develop the capability to determine the environmental impact of proposed construction projects and proposed regulations. This capability is needed for short-range and long-range construction planning -- such as powerplant siting, harbor development, sewage plant design -- and for the evaluation of proposed strategies, such as new water quality regulations, zoning of coastal areas, oil transport restrictions.

The technical framework for the research program should be developed around the evolving ability to model natural environmental systems. In simple terms, the systems model should describe, in quantitative terms, the effect of a proposed input -- for example, a new sewer plant outfall -- on the marine environment and ecological system.

It is only with this systematic approach to research planning and operation that the research community can be responsive to operational needs.

Let me say here that I do not underestimate the problems in coordinated interdisciplinary research with a number of independent research groups, but I have found the attitude that prevails in the groups related to Long Island Sound to be unique and refreshing.

Let me get back to my second answer to the question and be more direct. What specific research projects are of the highest priority in the sound?

First, we need to develop a good understanding of the microdynamics of Long Island Sound. We are knowledgeable of the broad circulation patterns in the sound, but we do not know enough about local flow and mixing patterns along the shoreline. Also, we cannot yet predict well how these local patterns respond to changes in topography, such as due to silting, dredging, or damming, and to changes in external forces such as river flow changes and tidal changes. This requires both survey and theoretical research.

Secondly, we need to better understand the diffusion and transport of dissolved and particulate matter in the sound, particularly near the shore.

Third, we need to better understand the chemical and biological processes that take place in the marine environment.

In simple terms, these first three research projects are concerned with tracing and timing the fate of pollutants in Long Island Sound.

Fourth, we need to design and implement a water quality monitoring program that will track the long-term trends in the sound. This monitoring program should be designed from a systems effectiveness point of view to insure a system that will satisfy its mission.

As a valuable fringe benefit, a monitoring program designed to maximize system effectiveness should also be close to maximum cost effectiveness.

These four research activities, effectively undertaken, will greatly improve our ability to assess the environmental impact of proposed future development and protective actions and will provide the long-term data base from which to evaluate the effectiveness of those development and protective actions that are undertaken.

Thank you.

MR. STEIN: Thank you.

Are there any comments or questions?

MR. KLASHMAN: When you are talking about that water quality monitoring program, are you talking about some type of an automatic system or are you talking about a system --

MR. HILL: No, I'm talking about a program, deliberately using the "program" different from a "system," in that a water monitoring program probably would involve a number of automatic stations but would also incorporate and possibly involve an extension of existing survey activities, would take into consideration those water quality surveys that are under way to the degree practical and applicable.

It would make use of aircraft observation, satellite observation, etc., which are additive here.

The emphasis is on a total systematic approach, if you wish, to a program planning, so that we can decide what ought to be monitored and then go into a routine long-term program to do this.

The cost effectiveness or system effectiveness implies the use of the various techniques for monitoring rather than switching to just a complete synoptic automatic system.

MR. STEIN: Any other comments or questions?

MR. GREGG: I want to ask a question. You heard the discussion this morning with Don Squires about short-range things -- that we might learn in the short range -- that would improve the quality of some decisions that are going to have to be made here in the next couple of years. What prospect do you think there is of doing some limited studies that would provide us with a reasonable basis for decision on some of these problems, like sites that are proposed for development?

MR. HILL: I think I probably agree, as you might well suspect, with Don's point on this, or at least my interpretation of it, and that is, you know, as researchers we are just kind of always apologizing for not really being sure of just what can be accomplished.

Certainly as far as powerplant siting is concerned, we are probably more knowledgeable and more able to advise with that particular problem at the present time than with some of the other more complex problems.

I think, in all honesty, the scientific community working with those who are called upon to make the decision in an advisory or working group manner can deal quite effectively with these problems relative to powerplant siting prediction or tradeoff analysis of one powerplant or another, things of this type, so long as the scientists realize that the decision-maker has to make a decision and can't wait for the long-term research and so long as the decision-maker realizes that the scientist is making his best estimate at any one particular point.

So I think they can be very effective in assisting in this decision-making process while carrying on the long-term range so we are not in so much trouble later on.

MR. GREGG: So you think the research community in the sound would be willing to work with what the Chairman suggested as some kind of task force on powerplant siting, might work during the next year on this?

MR. HILL: My interpretation, to the degree that I can speak for that research community, is I would say yes.

MR. STEIN: Any other questions or comments?

(No response.)

If not, thank you very much.

Mr. Curry.

MR. CURRY: My cup has run out.

MR. STEIN: We will now call on Mr. Tom Glenn for the Interstate Sanitation Commission. What we plan to do if we can is call on Mr. Peloquin and Mr. Gregg and then recess for lunch. We will then have an executive session. But we are going to complete the public part of this this morning if we can before lunch.

STATEMENT OF
THOMAS R. GLENN, JR.
DIRECTOR AND CHIEF ENGINEER
INTERSTATE SANITATION COMMISSION
NEW YORK, NEW YORK

MR. GLENN: I am Tom Glenn, Director and Chief Engineer of Interstate Sanitation Commission. I must admit that I was quite relieved that we had to discuss something pertaining to research in between Mrs. Dowling's talk and this one. She would be a hard act to follow. (Laughter)

I would like now to make a statement of the Interstate Sanitation Commission pertaining to this conference.

The Interstate Sanitation Commission is an agency of Connecticut, New York, and New Jersey with programs and responsibilities in the fields of water and air pollution. Since this conference deals with water quality, we shall make no further reference to those jurisdictional concerns of our Commission not directly related to that subject.

The waters within which the Interstate Sanitation Commission functions may be described in general as those of the Greater New York metropolitan area. It may be important to point out that the Interstate Sanitation District includes the lower Hudson River because Westchester County fronts on that water body as well as on Long Island Sound. However, it is most particularly relevant to note that the Commission's jurisdiction over Long Island Sound covers the entire area west of a line from the easterly side of New Haven Harbor to Port Jefferson, New York.

We are happy to participate in this conference and hope that it may have beneficial results. However, we believe it appropriate to express some wonderment at the fact that it is being held under authority of section 10 of the Federal Water Pollution Control Act. That law is an enforcement measure. While it is always the hope that the first stages of an enforcement proceeding will resolve the outstanding issues and so will make unnecessary any further action, the premise underlying any enforcement action is that a condition meriting the application of pressure or compulsion exists. This does not appear to be the case in Long Island Sound.

Moreover, we have had reason to believe that such inquiries and investigations as the Federal Water Quality Administration (now EPA) has made point to that conclusion.

In the November 1969 "Report on the Water Quality of Long Island Sound," issued by the FWPCA, the summary states that although there were indications that potential water quality problem areas exist, the data obtained did not verify a violation of water quality standards. The report also states that chlorophyll a levels were in a range which indicated that a problem from excessive algal growth is not likely.

In 1970, the Interstate Sanitation Commission made an intensive survey of the upper East River and western portion of the sound. The waters surveyed extended from Rikers Island in the East River to the mouth of Hempstead Harbor in the sound. This was done at the behest of -- and in cooperation with -- the FWQA. However, due to limited manpower, the Federal participation was limited to one brief run up the northern shore of the sound, taking only one sample at each station. The Interstate Sanitation Commission conducted sampling, testing, and analytical activities for a much longer period.

The Commission has an extensive background in sampling tidal waters. It has found that the values of parameters such as percent dissolved oxygen saturation vary greatly over a tidal cycle. We have some places in the upper harbor where we even found as much as 50 percent difference in one tidal cycle. Therefore, to obtain samples for analyses over the complete tidal cycle, our survey included sampling at each station three times each day over a period of 11 days.

As a result of the survey and of other information concerning the area regularly gathered by the Interstate Sanitation Commission, it is apparent that on the whole Long Island Sound is a healthy body of water. Although the dissolved oxygen in the waters in the upper East River still does not meet the Tri-State Compact requirements, the results of our 1970 survey show that the oxygen content of the waters was from 4.9 percent to 11.7 percent higher in 1970 compared to a similar survey we made in 1959.

I have copies of excerpts of this survey of last summer that I will put out after all the other testimony is given if anyone would like copies. Also I have a few copies of the 1959 report.

There are local problems in some of the estuaries adjacent to the sound. But in every instance there is already construction under way or in an advanced design stage to remedy the substandard conditions. In all of the instances where remedial measures have not been taken voluntarily, compliance has been pressed either by administrative or court enforcement proceedings brought by the Interstate Sanitation Commission or one of the two States concerned.

Also it may be noted that in the upper East River and western part of the sound, coliform counts, in all of the counts of our survey, are high. We would be surprised if this were not so since the treatment plants discharging into the upper East River do not have facilities for disinfection. One difficulty in evaluating the change in bacterial numbers is due to the total coliform system which was used at the earlier survey and at this one last summer. This is not as good an indicator of contamination, and that's one of the reasons the Commission has recently changed over to using fecal coliforms as one of our standards.

The Commission's new upgraded classifications and both stream and effluent standards will become effective April 15. That is tomorrow. We also have copies of those available here if anyone would like to see it. This does require -- somebody in their testimony questioned the degree of treatment -- at least in our portion that it is all Class A waters and requires not less than secondary treatment with 80 percent removal of BOD at all times.

Another difficulty discussed subsequently is the effect of combined sewers. The Hunts Point, Wards Island, and Bowery Bay plants in New York City have had an increase of 18 percent in the volume of the waste which they must treat in the past 10 years. The necessary treatment capacity has not kept pace with this increase.

This increased flow not only affects the overloading of the existing treatment facilities, but it also aggravates the combined sewer problem. Until expansion of the treatment facilities is completed -- we are told today this is ready for construction to start this year on these expansions -- and effective disinfection is practiced, it is difficult to see how this situation can be remedied -- that is, this high coliform count in the western end.

If you look at our report, it starts back near these plants, and it is somewhere like 60,000 coliforms per 100 milliliters and tapers out shortly after it gets out through Throgs Neck, drops down, to about a 2,000 level, and from there it tapers off very rapidly.

While this construction work is proceeding, a major effort to minimize the effects of combined sewers should be undertaken so that when the upgrading of these treatment plants is completed, the full benefits of their improvements can be realized.

One of the conclusions and recommendations reached by the conferees at the third session of the Hudson River Conference held in June 1969 was that the Interstate Sanitation Commission should undertake a detailed examination of stormwater overflows. We were led to believe that if we acted immediately with an application, we would receive an enforcement grant of $100,000 to start this study. Unfortunately, the money was not immediately available, and the funds were later reduced to $50,000. As of this date, the requested grant has not been funded, and I'm sure the chairman will hope this will happen sometime because I have haunted him for several years now.

MR. STEIN: I got up the $50,000. I don't know why you couldn't take it.

MR. GLENN: The communication broke down somewhere.

MR. STEIN: Not by me.

MR. GLENN: Since the Commission considers minimizing the effects of combined sewers to be of the highest priority in the New York metropolitan area -- and to indicate another portion where they are talking about the National Gateway Park under Verrazano Bridge, after everything is picked up and receives full secondary treatment, 850 million gallons of sewage will spill every time it rains -- we have proceeded with the combined sewer investigation on a more limited scale with existing funds.

If the effects of the combined sewers cannot be minimized, we believe that the other steps taken for the abatement of pollution will be negated by the overwhelming effect of the gross pollution occurring from the spilling of combined sewers.

While there is a considerable amount of industry in the area, Long Island Sound is a body of water that is and should remain suitable for recreational uses and, in some places, for shellfish culture. Undoubtedly, it will be necessary for public agencies to continue their active water quality management programs so that steadily increasing population pressures will not have an adverse effect. Also, private entities will have to cooperate and become increasingly meaningful of the relation of their activities to the quality of the sound waters.

Because it is an interstate water body, Long Island Sound is a necessary subject of intergovernmental cooperation. This is why the Interstate Sanitation District includes a portion of the area which forms the subject of this conference. Certainly it is to be hoped that there will be energetic implementation of relevant local, State, interstate, and Federal programs.

For its own part, the Interstate Sanitation Commission intends to continue to give vigorous attention to Long Island Sound and to all other parts of the Interstate Sanitation District.

Thank you, Mr. Chairman.

MR. STEIN: Thank you.

Any comments or questions?

I just have one, Mr. Glenn. As always, you put out a very interesting statement. But you say one thing I agree with: "The premise underlying any enforcement action is that a condition meriting the application of pressure or compulsion exists." Then you go on to say that this does not appear to be the case in Long Island Sound, and I'm sure from what you say that is your opinion. But after hearing the presentation from Mrs. Dowling and the Byram River, I'm not sure that opinion is universally held.

MR. GLENN: Well, I think even Mrs. Dowling would admit that there are programs that are moving forward. I share with her some of her problems, and I have worked with her organization on some of these particular problems, but --

MR. STEIN: Well, I'm not sure I understood Mrs. Dowling and Mr. Haughwout. When you talk about the application of pressure or compulsion, I sort of got the impression that that's what they were asking.

MR. GLENN: I'm sure she was. She was trying to get it resolved with a letter from Washington, which has held up part of one of our projects.

MRS. DOWLING: I was out. I'm sorry. I don't know what you're talking about.

MR. GLENN: You'll have to ask Mr. Stein.

MR. STEIN: No, we're all right. Are there any other comments or questions?

(No response.)

If not, thank you very much.

Mr. Peloquin.

STATEMENT OF
ALFRED E. PELOQUIN
EXECUTIVE SECRETARY
NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION
BOSTON, MASSACHUSETTS

MR. PELOQUIN: Mr. Chairman, fellow conferees, I think --

MRS. DOWLING: Oh, I agree. I agree. Sorry, sir.

MR. PELOQUIN: I think the horse has been well beaten during these two days, and any extensive statement on my part would be redundant. I think it is obvious from statements by my fellow conferees that pollution abatement efforts are proceeding in accordance with federally approved schedules, and where schedules are being missed, where slippages occur, compliance under due process has been initiated.

I do have a few comments, however, which I feel are pertinent. Obviously, there are problems in the sound, and some of our commissioners have expressed considerable concern with the potential nutrient problem. This matter will be referred to our Technical Advisory Board later this month for consideration.

On the basis of Federal testimony presented yesterday, I want to emphasize that the calling of this conference was based on one sample at some 100 locations over a two-year period. Alleged violations of criteria occurred in approximately 10 percent of the samples.

One sample per station can hardly be called adequate representation of water quality. All it says is that on the day of sampling, the water at that station did not meet the criteria. Logically, perhaps we can assume that the condition of violation is permanent. However, over the 730-day period covered by the conference report, there may have been many days when all waters were in compliance. Conversely, there may have been days when the water quality was far worse than noted in the report.

I hope that, should future conferences be necessary, violations will be based on more intensive field surveys. Otherwise, we would have to question the credibility of the reports.

As Mr. Curry said yesterday, this report was received on April 5, 1971. Mine is stamped "Preliminary Data." Upon registering yesterday, I was handed a copy with the same cover but unstamped.

Mr. Curry was fortunate in having a staff to review the report. I am not that fortunate. I do not feel I was able to give the report adequate review and most certainly could not review the report handed to me yesterday. I can only hope that the two documents are identical.

I also hope that, should future conferences be held, EPA will see to it that the conference report is made available to the conferees at least 30 days in advance of the conference date. Otherwise, I will be the first to request a postponement or recess so as to have adequate review time.

I would like to make reference to page 33 of the report, the section which pertains to the New England Interstate Water Pollution Control Commission. I think the record should show that supplemental statutes are being ratified by the State legislatures of the compact-member States expanding the authority of the Commission to include surveillance, enforcement, and training and certification of waste treatment plant operators. I am sure our commissioners will not hesitate to exercise these new authorities, including enforcement, as the need may arise.

Connecticut, Maine, New York, and Rhode Island have ratified the statutes. New Hampshire currently has them under active consideration. We are working for ratification by Massachusetts and Vermont.

I don't recall during these two days that mention was made of the expiration of the Federal Water Quality Act as of June 30, 1971. With the expiration of this law, at that time, all Federal action, including funds to build treatment facilities, will cease. If we wanted to eliminate Federal intervention, we could urge that new legislation not be enacted. However, if the job is to be done, Federal assistance will be needed -- and, as Mrs. Dowling said, you're all we've got.

I would like to urge everyone in this room to find out about the pending legislation, the Muskie bill, which is S. 523, and the Administration bills, which are S. 12, S. 13, and S. 14. S. 12, S. 13, and S. 14 deal with extension of the Water Pollution Control Act. Interested persons should contact their Congressmen and Senators relative to enacting good legislation as expeditiously as possible so we can be assured of uninterrupted and continuous support in our pollution abatement efforts.

The Commission is presently preparing an analysis of the proposed legislation. This analysis, with recommendations, will be made available to the public on request. I might say that in a statement to the Senate Subcommittee on Air and Water Pollution, a recommendation has been made that the conference procedure such as we have had here be abolished in favor of a better, more flexible, less costly procedure which will truly lead to pollution abatement. I know of no pollution abated in our compact area as a direct result of the conference procedures.

The recommendation also calls for joint State-interstate-Federal enforcement action under section 10 of the law should it be necessary to proceed under Federal law.

Finally, many recommendations have been made during these two days. I am delighted that Chairman Stein has indicated that we will adjourn to an executive session. It was tentatively proposed we adjourn to executive session so we could kind of sort out our views and come up with final conference recommendations.

MR. STEIN: Thank you.

Are there any comments or questions?

MR. METZLER: I merely want the record to indicate that I don't share Mr. Peloquin's view regarding the effectiveness of conference procedures. And to those of you who have not been following them for about 15 years now, as I have in participating in them, let me suggest that you compare what has happened as a result of the enforcement conferences, how much pollution has been cleaned up, and then take a look at the legal cases that have been filed and see how much pollution has been cleaned up.

I think this is a will-of-the-wisp, that we should be careful about jumping on the bandwagon until at least you take a look at the facts. If after you look at the facts that I have suggested you think the conference procedure isn't effective, certainly you have that right.

MR. STEIN: Any other comments of questions?

(No response.)

If not, thank you.

Mr. Gregg.

STATEMENT OF

R. FRANK GREGG

CHAIRMAN

NEW ENGLAND RIVER BASINS COMMISSION

BOSTON, MASSACHUSETTS

MR. GREGG: I would like to take a couple of minutes to explain the study that the New England River Basins Commission will presumably be doing in Long Island Sound. There have been several references to it here.

The Congress appropriated $100,000 in the current fiscal year for the purpose of outlining an approach to developing a comprehensive program for management of Long Island Sound. This is not strictly a water quality program. It is the kind of program which attempts to look at all the resources of the sound and its shoreline and all the demands that may be placed on these resources in the future and alternative ways of meeting future needs and reconciling conflicts.

It is an intergovernmental study involving a dozen or so agencies of the Federal Government, many agencies of the States of Connecticut and New York, local governments, and private interests, citizen groups, the business community, and so on.

The President's budget for fiscal year 1972 includes $250,000 for this study in fiscal year 1972. Members of the congressional delegations from New York and Connecticut have expressed publicly their desire to get that $250,000 amount increased. I have no comment on that except to simply note that that is the case.

To relate this alleged comprehensive plan to the purpose of this conference, the planning program will include a water quality element and Federal funds will be appropriated to come up with findings of fact and recommendations for water quality management in the sound. As I mentioned yesterday, all of the agencies who are sitting at this table are the agencies through which the New England River Basins Commission operates in water quality planning. And the funds will be expended and be available to and will be expended by these agencies for the purpose of looking ahead in terms of water quality problems and solutions in the sound.

Similarly, other aspects of sound management, including land use, wetlands preservation, future navigation requirements, power requirements, and other multiple demands on the sound will be studied.

We will take these discrete portions of the study, try to find out where the conflicts are, and ultimately reconcile them and come up with what we hope will be some sensible alternatives for future management of the sound.

We do hope to clarify these alternatives in ways in which the people who live here can see what their future options are and make tradeoffs between conflicting future objectives.

I would like to note, finally, that it is my hope that the enforcement conference called by the Environmental Protection Agency may be used as a device for applying additional sources of funding through the regular channels of the Environmental Protection Administration for the water quality investigations which are specific responses to this conference.

I'm trying to distinguish here between water quality investigations which are designed to produce a long-range water quality management plan for the sound and those kinds of things that we might want to try to get at specifically in the next year or so in the interest of dealing with some of the specific things that are identified in this conference.

If that can turn out to be the case, then this will give us a shot at dealing more efficiently and directly with some of the kinds of short-range problems that have been identified here as well as giving us an opportunity to do what we have never done before and to do what this comprehensive study is supposed to do, which is to get us out ahead in time of future problems and give us a chance to address the sound as an economic and as a social and as an ecological entity in advance of the problems and try to prevent the kind of future crises that bring us here today.

Thank you very much.

MR. STEIN: Thank you.

Are there any comments or questions?

(No response.)

If not, I think that concludes the presentations.

Does anyone in the audience feel they want to say something?

Come on up, because we are going to close the public presentation.

STATEMENT OF

JOSEPH F. MORAN, JR.

DIRECTOR, ENVIRONMENTAL STUDIES INSTITUTE

HIGHER EDUCATION CENTER FOR URBAN STUDIES

BRIDGEPORT, CONNECTICUT

MR. MORAN: My name is Joseph F. Moran. I am Director of the Environmental Studies Institute of HECUS in Bridgeport. I would like to read a statement into the record of Dr. Richard J. Quinton, Chairman of the Bridgeport Conservation Commission, for Mayor Hugh Curran of the city of Bridgeport, Connecticut.

(The prepared statement of Dr. Quinton follows:)

We went on record at the time of the Ribicoff hearings on the then proposed bill S. 2472, in recognizing the unique natural attributes and social significance of Long Island Sound. We indicated our awareness of the environmental degradation which has taken place and the immediate threat of further exploitation and insult of this resource through arbitrary or unwise action. We again emphasize that time is critical in resolving the many problems associated with the abatement or cessation of negative actions to achieve rehabilitation of Long Island Sound.

Bridgeport's concern for these problems and action toward improving conditions has been demonstrated by a number of positive actions. Construction has been initiated to substantially modify and upgrade the city's sewage treatment plant, as alluded to by Mr. Curry yesterday.

Action was initiated to increase the authority and operational duties of the office of harbormaster. Existing legislation was amended at the State level to improve this function. A new harbormaster was hired to undertake these expanded duties.

The city, largely at its own expense, undertook a detailed study for the "Assessment of the Ecological Parameters of the Bridgeport Harbor, its Tidewaters and Tributaries." This study was initiated on July 1, 1970 to be completed in 12 months. It is my understanding that a detailed report of the study will be spearately presented today.

Action committees have been formed involving municipal departments and related commercial activities to establish functional procedures and response systems in the event of accidental oil spill in the harbor waters. The city has also cooperated with and participated in long-range planning programs with other communities on the Connecticut and Long Island shore concerned with oil spills.

The city has further demonstrated its concern by supporting the State Wetlands Act and in the preservation of marshes, illegal dumping and filling, etc.

The foregoing actions identified with particular problems are positive steps which have been taken. These facts demonstrated not only active concern but the commitment to expend time and funds to achieve necessary goals. Admittedly, much more needs to be done, both separately and in cooperation with State and Federal agencies. Clearly, long-range integrated programs, adequate funding, and involving all communities on Long Island Sound are needed. The city of Bridgeport supports legislation and action programs leading to these goals.

The foregoing statement made by Dr. Richard J. Quinton, Chairman of the Bridgeport Conservation Commission.

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MR. MORAN (continuing): I would add to that a second very brief statement by myself.

The city of Bridgeport, the Chamber of Commerce, business firms, and HECUS (a consortium of five area universities) joined forces in June 1970 to implement a baseline study of the water quality of the Bridgeport harbors. No State or Federal funds support this project.

The initial phase of the study focuses on chemical, physical, and biological parameters of the harbor waters. We are measuring, at some 30 stations, temperature, pH, dissolved oxygen, BOD, transparency, nitrates, ammonia, phosphates, sulfate, chloride, detergents, cyanide, and oil and grease content. Biological parameters include the measurement of total and fecal coliforms, plankton, macrobenthic organisms, and fish populations.

The second phase of this program would continue to measure certain of these parameters on a less frequent schedule, but examine "trouble spots" more intensively. Additional parameters such as heavy metals, oil and grease content of bottom sediments, and biota would be examined.

The municipal government and the business firms supported this project knowing that the information generated would enhance the quality of decision-making in this area of concern at the local level.

The city would be pleased to provide this report, when it is published, to the Environmental Protection Agency with the anticipation that it would, in some small way, be of assistance to your agency in its decision-making processes.

I thank you.

MR. STEIN: Thank you.

Are there any comments or questions?

(No response.)

Thank you very much.

Any others?

(No response.)

Murray Stein

I don't say this in defense of statutory proceedings one way or the other, but I do think the conference we have had here has been very productive. I think we have a fairly complete record on the state of the knowledge.

Secondly, I think we have a pretty complete record on the problems involved.

Thirdly, I think we have had a pretty thorough airing of the various views that we have had here. I regret that we didn't have more representation from the industrial and municipal sources named in the report, but I guess that's the way things go.

I also think that we have had several indications that appropriate action might be required under other provisions of State, interstate compact law, or Federal law, and I'm sure that these points have not gone unnoticed.

However, I guess, knowing all these agencies, that we all proceed on what we hope are the facts within the limits of our statutory authority. But as far as I am concerned I have noted several problems here that require immediate looking into, and I can assure you that this will be done.

The conferees will, after a recess, go into an executive session. I would expect, if anyone wants to wait, that I will be available between 4:30 and 5:00 o'clock here and hopefully have an announcement for the conferees at the same time.

I want to make this clear because sometimes this has happened before. There is no pre-caucusing between me and the conferees, nor are there any prearranged signals. Sometimes when we go into executive session things go along faster than at other times. So either I will be here at 4:30 to 5:00 o'clock -- and I know we are going to do our best to do that -- or if I am not, we will send out an emissary and tell you when I will appear if anyone wants to be here at that time.

We stand recessed. As far as we are concerned, the public portion of this, except for the announcement later, is over.

I and several other members of the Federal staff and members of the State and interstate agencies will be available later, and during the recess, of course, for any questioning or private consultation you might wish to have.

(Whereupon, at 1:00 p.m., the public portion of the conference was concluded.)

Conclusions

(At 5:00 p.m., Mr. Stein appeared before interested members of the press and public and made the following statement:)

MR. STEIN: I am happy to announce that we have had unanimous agreement among the States, the interstate agencies, and the Federal Government. While some people may condemn unanimity in these affairs, I think there is much to be said for it, particularly when we have a complex situation such as we have on Long Island Sound and we have to work through a multiplicity of Federal, State, and interstate agencies.

The conferees agree that:

-- The State and interstate agencies are taking action to abate pollution in accordance with applicable State and Federal laws and implementation plans.

-- An extensive pollution abatement program is moving forward toward the attainment of the State and Federal water quality standards.

-- A high degree of secondary treatment for all discharges into the Long Island Sound conference area is being required.

-- Enforcement action will be taken immediately whenever there is a source of pollution not in compliance with State-Federal approved water quality standards.

-- Treated waste discharges will be disinfected to eliminate any hazards from bacterial pollution.

-- The current State implementation schedule for polluters discharging into the waters covered by the conference follows: (See appended schedules.)

And you will be given a detailed schedule of this implementation schedule.

-- The Environmental Protection Agency, the State and interstate agencies continue to develop a water quality management program for Long Island Sound coordinated through the New England River Basins Commission.

-- The practice of depositing polluted dredged material in spoil areas of the open waters of Long Island Sound will be prohibited.

-- Studies of the combined sewers in the conference area be conducted by Connecticut, New York, and the interstate agencies to determine methods of elimination, treatment, or control, and a report on this activity be submitted to the conferees by April 1973.

-- Connecticut and New York will implement their programs for the installation of onshore waste disposal facilities for boats. The Federal Government shall enforce treatment requirements to meet existing Federal water quality standards.

Conclusions

-- The Federal Government, State and interstate agencies cooperate in developing compatible requirements governing thermal discharges which will be applied to power-plants and such other discharges as are considered significant. The States, interstate agencies, and the Federal Government in cooperation with their technical staffs will recommend to the conferees specific temperature requirements for the waters of the conference area.

-- The States, interstate agencies, and the Environmental Protection Agency will develop within six months a compatible preventive program to control oil pollution related to the storage, transfer, and handling of oil.

-- The conferees urge those agencies of the Federal Government with jurisdiction over seagoing vessels to develop and implement appropriate programs for the control of leakage, accidental and other discharge of oil from such vessels.

This concludes the recommendations and conclusions of the conferees. We will be glad to entertain any questions or comments.

QUESTION: Mr. Stein, you say that secondary treatment will be required in all cases. Is that correct?

MR. STEIN: That is correct.

QUESTION: Primary treatment, no matter how high-grade, will not be acceptable?

MR. STEIN: Primary treatment is just a mechanical form of treatment, and at the best it's not very high-grade. I don't know if we don't have a contradiction in terms in this day and age when we speak of primary treatment and high-grade treatment.

QUESTION: You mention in part the thermal standards. Would these be sort of "degree of temperature rise" type of thing or would they be mixing?

MR. STEIN: I'm not sure you have given me proper alternatives. I think if we have temperature requirements as we have had in other areas of the country, we will have a degree rise and something in addition.

Now, for estuarine waters, the degree rise is considered to be, according to the National Technical Task Force, 4 degrees Fahrenheit in the winter and 1.5 degrees Fahrenheit in the summer. In addition to this, there will be superimposed a month-by-month limitation on the maximum degree of temperature that is required to support desirable fish species and the attendant food chain and biota. And whichever figure is less will obtain.

Generally speaking, the critical periods that are imposed -- this 4 degrees during the winter, 1.5 degrees in the summer -- are the temperature requirements during the critical months of spawning and the very hot summer months.

Biologists have consistently said the reason we ask for this limitation on the degree rise is that, contrary to usual expectations, the fish don't die because of warm water, when they get into warm water, but because they get into cold water.

For example, if you have a 20-degree rise during the winter and the fish would get acclimated to that 20-degree rise, if that warm water source were cut off for any reason or the fish left it for any reason and got into the real cold water, they'd be shocked and they'd die.

In other areas we have superimposed two kinds of requirements -- one, a degree temperature rise under any conditions and, secondly, a month-by-month maximum -- and the lesser amount would obtain.

QUESTION: This is in an effluent standard as opposed to allowing a certain mixing zone that you are talking about? In other words, you can't let it come out into the river or into the sound at a temperature above 4 degrees?

MR. STEIN: I don't see any difference -- and a lot of people have put this up as a conceptual matter -- I have never seen the difference -- between a temperature standard and a requirement of a stream standard.

Let me point out that whatever we set as a standard for any requirement -- but let's suppose we're dealing with temperature for fish -- whatever we say, the fish don't know that and they don't read the standards. Either they're going to thrive and propagate or they're not going to thrive and they're going to die.

If you have to have certain conditions in the stream or in the waters, you're going to have to translate that back to what is coming out of the pipe.

There are so many variables in the stream that I think if we are going to have a regulatory control or if we are going to have to ask a man who runs a powerplant to exercise a reasonable control, the thing that he is going to have to be kept responsible for is the temperature of the water coming out of the end of the pipe which he has control of.

I do not think you can keep a powerplant operator responsible for all the vagaries and shifts of winds and currents and whether a tongue of pollution goes beyond the mixing zone for a half hour or 3 feet or 20 feet or goes to the north or south or southwest. This is going to have to be the judgment of the regulatory agencies, State, interstate, or Federal, and then we are going to have to tell the man running a plant what he is going to have to put out at the pipe. And I think that would be the essence of reasonable regulation.

QUESTION: Mr. Stein, you mentioned disinfecting. Does this mean year-round then?

MR. STEIN: No, not necessarily. It may mean year-round. It depends on the water use here. We discussed this in the executive session.

If they don't swim year-round, it may not mean year-round for that place. But if you are dealing with shellfish year-round, it may mean year-round if you are discharging into an area in which it affects shellfish.

Depending on the water use, the disinfection may or may not mean year-round.

QUESTION: Mr. Stein, when you talked about prohibiting the dumping of polluted dredging matter, that means just polluted dredging matter or all dredging matter? And since most dredging matter is polluted, would that mean an end to dumping except by Pfizer?

MR. STEIN: Well, again, we set up the requirements, and the chips fall where they may. It's the same as on this disinfection. You have heard some people say that the dredgings come from the harbors and the harbors get a load of waste and they are polluted. If this is the case, we won't permit the dumping.

But the requirement is the prohibition of dumping of polluted dredged matter. There will have to be a case-by-case determination of whether this dredged matter is polluted.

If you accept the views of some of the witnesses here that all the dredged matter from the harbors in Long Island Sound is polluted, presumably they won't be able to dispose of that to the sound. However, if they are not polluted, of course, we will be open to consideration on that.

I think that's the purpose of a regulation, not to necessarily outline what every particular party is going to do but to protect the waters and let the regulation fall where it will. If you are within that regulation, you can't do it.

QUESTION: Are there any standards to determine if dredged material is polluted?

MR. STEIN: We have certain requirements to determine whether it is polluted. We have done that in many areas of the country. For example, on the Great Lakes, that's the basis. The whole program is based on whether they are polluted dredgings or not. There are several requirements and water quality criteria, and we can examine the constituents of dredgings and see if there is any deleterious material in them.

QUESTION: Are all dredging operations standards suspended immediately after this date, like Pfizer, until investigation of each one?

MR. STEIN: Again, these people are not here. We can only deal with what we're doing in the Environmental Protection Agency. As many of you know, our sister agency, and an agency that I work very closely with and have worked closely with through the years, the Corps of Engineers, is primarily responsible for dredging and dredging permits.

I'm sure that the Corps will be consulting very closely with us on the effects on water quality of the disposal of any dredging. But the Corps of Engineers has the statutory responsibility for issuing dredging permits and controlling dredging.

QUESTION: Because the Corps said yesterday they questioned any move to cease all dredging at this time, after Mr. Fogarty's statement, which would seem to put you at odds with each other.

MR. STEIN: No, I don't think so. If the determination is polluted dredging at this time and this is the recommendation, the question is a factual one whether all their dredged material is polluted or some is and some isn't. And we'll determine that.

Some of the witnesses said here that every bit of dredging that comes out is polluted.

The Corps had no objection, as I understood that, to suspending the disposition of polluted dredging. And this will be a factual situation. I think we and the Corps see eye to eye on that.

QUESTION: I'm interested in your use of the verb "is being required" on this secondary treatment. Do you mean that it's approaching that?

MR. STEIN: No, no. We mean the States have a continuing program for secondary treatment. The notion there was that this was not a new requirement we were putting in here now, that we and the States had a continuing program for secondary treatment, and we're emphasizing that is being required and will be carried forward.

QUESTION: Does this include industrial discharges also?

MR. STEIN: Absolutely. I don't think we can clean up any waters by just concentrating on municipal discharges or industrial discharges. We have to do both.

QUESTION: Secondary treatment can clean the chemical wastes --

MR. STEIN: "Secondary treatment" is a word of art in the pollution control business. It is derived from a reduction of organic municipal wastes. Generally, primary treatment just deals with a mechanical settling of wastes.

Secondary treatment has dealt with a biological reduction of what was left after that primary treatment.

Generally, they do this through a trickling filter, which you have seen, an arm going around and around over that crushed rock. In the interstices of the rock there is a film of bacteria that keep chomping away and eating the bacteria or else you generally have an activated sludge which is like putting an additive in the yogurt or something and having it eat. It's a biological operation.

What this kind of treatment does is get reduction, anywhere from 75, 80, up to 90 percent reduction, of BOD. This can be translated roughly when you have organic wastes in industrial wastes if you're talking about the same kind of reduction. But where you have inorganic wastes, you have to make a judgment on what you're going to do to get a reduction in this sense.

In other words, what we determine is pretty generally the kind of reduction we expect in water quality. You have to translate that individually to each industry concerned.

QUESTION: I think the question I'm getting at is this: In the report here it is stated the metal finishing industries which discharge pickling acids and that sort of thing into the sound are one of the greatest problems on the

Connecticut side. Secondary treatment, as you stated, is normally concerned with organic discharges, and so forth. What is being proposed-- Are you proposing secondary treatment for non- --

MR. STEIN: I'm not sure that the secondary treatment in that sense has very much meaning relating to pickling liquors or plating liquors. What we have to do is remove enough pickling liquids or plating liquids so the discharge of those materials will not interfere with any legitimate water use.

QUESTION: Mr. Stein, in No. 10 you're talking about the onshore waste disposal facilities. Do you have indication that these facilities can be built in Connecticut without legislative action on shore? These are for the disposal areas for the boats.

MR. STEIN: I don't want to make a judgment on what Connecticut law is, but we have had that problem in other States. Some States have done this with legislative action. Some States have done this without legislative action.

All you need is an onshore disposal facility in the city or a marina to let someone go. And no one has to have a license to a boat. That's something that is permissible. If you have the license authority on a boat, you can require it to have a holding tank, require them to have access to an onshore disposal area, or you don't issue the license. It's a question whether they do that or not.

Now, whether Connecticut wants to do that by State statute or through its licensing authority is a State prerogative.

QUESTION: On that same subject, this recommendation would seem to indicate that the Federal requirements when they are published will be a "no discharge" type law such as New York's. Is this true?

MR. STEIN: I'm not anticipating that, and I don't think I can.

Again, as I thought I pointed out at the conference, someone else in our Administration is developing these requirements. I gave my recommendations, but I'm not the last word on that, nor am I the person responsible nor is my office responsible for promulgating these regulations.

I'm not saying that in the sense of ducking any question. I just don't know. That's being done by someone else.

QUESTION: What is the legal status of the 11 recommendations? Can the States choose to ignore them and nothing happens?

MR. STEIN: Well, I'll tell you. Until the

Administrator of EPA adopts them or rejects them or modifies them, I guess the legal status is in limbo. But if he adopts them, I guess the States can choose to ignore them if the States wish. Of course, everyone can ignore any one of these things at its peril.

The one advantage that I guess States have in this is the States of Connecticut and New York are not the polluters. If these recommendations are ignored, we are not going to proceed against New York or Connecticut or one of these interstate agencies. We are going to proceed against the polluter.

I would like to make one other thing clear. There are several problems brought up here which may call for Federal legal action before we take action on these recommendations. There is nothing to inhibit us from filing an 1899 Act action or an action for violation of standards, and at least there were allegations here that both of these existed in the conference area.

I'm going to look at these very carefully. If Federal legal action is required to achieve compliance in any of these, I am going to recommend it, and again it's up to the Administrator to make a judgment whether he's going to authorize this or not.

QUESTION: You say that you're going to look into the GAF situation and the Pfizer situation?

MR. STEIN: I think the Pfizer situation, if I understand it, has been resolved for the time being. If Pfizer is not going to discharge any more until the Corps checks with us, I think that's a resolution to the problem. If you ever want to see instant results, I think we have probably got one by just asking a few questions.

But if you're talking about will I look into the GAF situation? --

QUESTION: Yes.

MR. STEIN: Immediately. As soon as I get back.

We have filed one 180-day notice against GAF and the plant in New York, and I think we got an adequate response. I think GAF is a responsible corporate citizen and has indicated to me that it wants to do a good job of protecting the environment.

I'm going to look into that. If there is a discharge that is violating Federal law that calls for immediate Federal action, you can be sure I'm going to recommend it.

QUESTION: Mr. Stein, in the case of Pfizer, maybe you have later information, but until 3:00 o'clock this afternoon their plant manager says he has to dump Thursday or start laying people off. He's very interested in knowing how long it might take your agency to reach decision on this thing he has been doing for so many years.

MR. STEIN: It's the Corps of Engineers. One of these days I'm going to hear of some plant somewhere that is going to say they're going to comply and not say, "If we have to do that we're going to have to lay people off." I'm holding my breath.

QUESTION: How long do the alleged polluters have to come into some kind of abeyance with these conclusions here, providing the Administrator --

MR. STEIN: As far as I know, they all have a schedule now. Either the schedule is accepted or revised, and they have to be in compliance with the schedule. Either they are on schedule now or they are off schedule. If they are off schedule, we will take appropriate action unless the schedule is modified.

QUESTION: What about companies that maybe aren't on the list that you published? Was any action taken, any steps taken, to include these?

MR. STEIN: I think all discharges are included whether they're on the list or not. I don't think there is any place one can hide. Either they are covered by a State program or an implementation plan. If they are not on the list and we find them, they will be. Or if not, they are complying with a standard schedule and we can proceed against them. Or maybe they are violating the 1899 act.

But if we find anyone discharging any wastes into Long Island Sound or its tributaries that is polluting the navigable waters of the United States, we are going to take action against them. If you know any of those we have omitted from the list that you think warrant looking into, just call it to our attention and I'm sure we will give them thorough and complete and fair consideration.

QUESTION: Could you tell us what you feel this conference has accomplished?

MR. STEIN: Yes. We have brought together the State and interstate agencies and the Federal Government. We have had programs going perhaps in slightly disparate directions for some time. I think we have brought them together. We have brought all the facts together in one situation, and all the conflicting views. We have unearthed some situations that I don't think could have been done if you just dealt with one jurisdiction or another.

I think a prime example is a sister agency, the Corps of Engineers. You found the New England division testifying about the waters of Long Island Sound when, lo and behold, the New York office was issuing a permit for someone to discharge into these waters.

I think the efficacy of bringing this all together under one roof and putting it on one record is self-evident.

We have also brought up to date the accomplishments of the State and interstate agencies and also indicated where the schedules or the accomplishments fell behind the implementation schedule.

In addition to that, we heard from several citizens and representatives of citizen groups of situations in their areas that they regarded as gross violations of State and Federal law. And I want to assure you that I am delighted to get these. This is the heart of these conferences.

We are going to explore every one of these. If there is a violation of State and Federal law, I am going to recommend we take appropriate action to see that it doesn't continue.

QUESTION: Will there be any followup to this conference?

MR. STEIN: Yes. That's just what we are going to do.

I don't think I'm oversimplifying this thing. But the magic or the trick in this conference -- and let me give you the name of the game here -- is we do have a program for a cleanup of Long Island Sound. We have the general program lined up. The point is at a conference like this you can get a large number of dischargers complying with the schedule. You are also going to find a large number of dischargers who may have slipped a little but they are making valiant efforts. And you are also going to find a number of dischargers who either are not making efforts or, even despite their efforts, have fallen so far behind that drastic Federal legal action is called for.

I think we have shaken the box here, and these have all fallen out.

QUESTION: Will there be any similar conference or second conference or people getting together to see how they are doing on following up these recommendations?

MR. STEIN: Well, the point is I have to qualify that. The only one who can call these conferences is the Administrator. We generally do follow up with a conference. But everything we do is open, and any followup is made in the newspapers. You can check up.

Generally speaking, we have from time to time followed up on these conferences and met again to see how well we were doing.

What we have done in the conference -- and I think we have laid this wide open -- is we have laid out the problems, we have laid out what we think the States should do and we should do, and any member of the press or any other news-gathering agency, any city, any citizen group can call us up at any time and find out how well we are doing. We reveal the box score.

QUESTION: Right. I could say on recommendation No. 3 I would have a hard time asking you how well you're doing on that because it doesn't have any timetable or target date or anything else. You know, high degree of secondary treatment is being required is basically what it says. It doesn't say by such and such a date.

MR. STEIN: No, that's just a factual statement. I think you have to look at our implementation plans and the State implementation plans in carrying out the water quality standards and enforcement recommendations. There is a date, or should be a date, on any specific community or any specific industry, not only a date but interim dates. We're going to get that. I think we discovered we had final dates on most, but we hope in a month that the States will supply us with all the interim dates.

Now, all you have to do on any specific source is get to us and get to the States and we are going to be able to give you a date. Or if they can't, you had better call me and I'll get you a date on any one.

Then you have to recognize that all this says is what the dates are going to require is these people to put in a high degree of secondary treatment, that they're not going to be able to get by with some "chintzy" treatment.

But the reason they mention secondary treatment and not the date is because it was thought pretty evident in the conference that these dates were established.

I want to tell you as far as I am concerned all the information we have is public information. We are a public agency doing the public business in a public manner. Any time you want data on any installation, you call us up and let us know.

QUESTION: In your executive session were you able to convince either Mr. Peloquin or Mr. Curry of the accuracy of your basic report here, the blue book? They seemed to raise a number of questions about it.

MR. STEIN: I think the conclusions speak for themselves.

QUESTION: Well, of course, in your executive session we don't know --

MR. STEIN: I don't know about a "convincing." And I know my limitations and my powers of persuasion in convincing. But I think the facts are the things that convince. They are both professional people and understand the facts.

Let me just take one extra second on this because I think the situation here is in pollution control. What we are really doing is dealing with physical facts which can be measured. There may be a little difference. But if you take reasonable people who have been educated or at least apply certain professional standards, there is no reason unless you are an extremist -- and I don't regard Mr. Peloquin or Mr. Curry to be in that class, to have a specialized, peculiar theory that isn't common to most people, or to be an extremist -- that the facts have to speak for themselves within the profession.

I think this is what has happened, and that is why we came up with unanimous conclusions and recommendations.

QUESTION: In the thermal pollution area, No. 11, I assume this will apply to both nuclear and conventional plants?

MR. STEIN: Yes.

QUESTION: And the second part of my question is this: From your earlier comments, it seems like you have got all the technical data established already. How long will it take to set up the requirement and set limits for this conference?

MR. STEIN: I tend to agree with you --

QUESTION: You seem to have outlined them all.

MR. STEIN: No, I tend to agree with you that we are in pretty good shape. Again, what we're dealing with here is a Federal-State relationship. Possibly if I just sat with

Federal scientists or Federal biologists I would think we had this data available. But I do know in past experience when we have dealt with States and interstate agencies we may have had these scientists differ.

If there is a difference, we are certainly going to air that in the technical confrontations.

Again, I would like to come back to the statement we have had here. We are dealing with physical facts, and I don't look for any real problem --

QUESTION: Well, how long --

MR. STEIN: -- in making the physical facts apply to a particular situation.

QUESTION: How long before you might have a deadline and then I guess these standards would apply to all --

MR. STEIN: We didn't set the deadline, and we didn't set the deadline in the meeting for this. I thought, at least in my view, that this shouldn't take more than a month. Some people thought this might take up to three months. So we didn't set the time.

But I am going to have the technical staff meet and then see what the problems and what the differences are. I think you've got a kind of a ball park figure. If there are any really fundamental differences it may go up to three months. If there are not, they should be able to resolve it very, very fast.

We haven't had the fisheries biologists and aquatic biologists here to consult. But once we get them there, I don't look for any real problem. And I don't think the time span we gave gives that much difference. It's really de minimis.

QUESTION: Did you come up with any estimate of how many power plants might be required to have cooling towers or other facilities?

MR. STEIN: No, we didn't. But I think again here you have a proposal on these power plants, and I don't know how definite they are. As I read the Federal report, they had a couple of plants coming up in 1975, supposed to go on line. I think we should get to work right away on these. But I don't think in a sense we have any of these breathing down our necks.

QUESTION: We're talking about new power plants only then, not existing plants?

MR. STEIN: No, we're talking about existing plants too. We're going to look at the whole operation. But I think what you have to do with existing power plants is the same as where you have existing municipal or industrial discharges. Presumably they are putting out their discharges right now, and you should be able to make a determination whether they are interfering with water quality or not. But with the new plant we have to make a projection. Then we have to put them both together and determine whether with the existing plants or the new plants and both together we are going to have a problem.

But we have dealt with these problems before, and I think whether we are going to require closed cycle on new plants or cooling towers on new plants or backfitting on old or draw a distinction between them is something that the conferees are going to have to determine. I think we should be able to do that very shortly.

QUESTION: Mr. Stein, you have just finished an enforcement conference with very minimal attendance by the people who have to be enforced, the people who are discharging pollution. What effort did the EPA make to obtain the attendance of these polluters?

MR. STEIN: The way the law reads, sir, the conferees are the States, the interstate agencies, and the Federal Government. There was a strong feeling of States' rights when this law was passed. We invited the States, and under the law they can bring whomever they wish to the conference. Presumably the States invited these other people. We do not have the power of subpeona.

The administration's proposed legislation proposes that when we go into a substitute proceeding of this kind, which they will call a hearing, these other alleged polluters or dischargers will be parties to this proceeding and we will be given subpeona power in order to bring them in. We don't have that now.

QUESTION: When are you likely to receive that?

MR. STEIN: Do you want me to anticipate when we will receive legislation?

QUESTION: When would a substitute regulation be likely to --

MR. STEIN: It's not a regulation. It's a law. This is the law. And I'm just not smart enough to know when the Congress is going to pass a law.

QUESTION: Does the current law expire?

MR. STEIN: No.

QUESTION: No? So they will have to --

MR. STEIN: They will have to amend it or the present law will continue.

QUESTION. You mentioned briefly these layoffs. Is there any recourse now or anticipated against companies threatening these layoffs or closing rather than complying with standards?

MR. STEIN: Oh, companies threaten layoffs all the time. I think you can count on the fingers of two hands in my 25 or 30 years of experience in water pollution control where a bona fide layoff or closedown was due to pollution control. I think this is a gut reaction.

Now, it's like a baseball player getting up and cheering when Babe Ruth hits a home run. You've got to expect that.

QUESTION: One more question, Mr. Stein. Earlier this week a group in Washington headed by Nader issued a report concerning the pollution activities regarding water -- anti-pollution activities -- of the government. It wasn't a very optimistic one. It wasn't very praiseworthy. Do you have some comment on some of the criticisms in that?

MR. STEIN: No, I don't have any comment on that. I do know that the Nader people came around to our place two summers ago. That's the summer before this summer. I think I had at that time about 20 people out of 500 people in headquarters, and they devoted 80 percent of the report to my activities.

I said before that after I read that report I felt a little like the old man who was unjustifiably accused of rape. A couple of guys from the bar came out and beat him up in an alley, and they asked him about it, how did he feel about it.

And he said, "You know, if it wasn't for the honor, I'd just as soon skip the experience. (Laughter)

Any further questions?

(No response.)

(Whereupon, at 5:50 p.m., the press conference was concluded.)

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MUNICIPAL, PRIVATE AND INSTITUTIONAL DISCHARGES
TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
AS SUBMITTED BY THE STATE OF CONNECTITUCT

NOTE: A "1" AFTER THE DATES INDICATES COMPLIANCE WITH THAT STEP OF THE IMPLEMENTATION SCHEDULE

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES

(As Submitted by the State of Connecticut)

					State Implementation Schedule As of May 1,1971				
Name	Receiving Waters	Estimated Population Served	Municipalities With Combined Sewers	Average Daily Flow (MGD)	Degree of Treatment	Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
			Connecticut						
Greenwich	Greenwich Harbor	42,200		4.60	Secondary				
Byram River Interceptor									3/71
Belle Haven Interceptor							11/69 1	1/70 1	1/71
Stamford	Stamford Harbor	92,700		9.20	Primary	7/67 1	8/69 1	2/70	5/71
Interceptors						7/67 1	8/69 1	2/70 ↓	5/71 ↓
Stamford-Indian-Ridge	Rippowam River	500		0.05	Tertiary				
Darien	Long Island Sound	6,300		0.70	Primary	12/67 1	2/69	10/69	10/70
Norwalk	Norwalk River	55,000	X	9.00	Primary	7/67 1	10/69 1	6/71	7/71
Sewers						1/69 1	12/70	5/71	10/72
Norwalk (6th Tax District)	Norwalk River				Septic Tank				9/71
Westport - Sewers	SAUGATUCK River	48,000		0.50	Secondary	3/68 1	4/70 1	12/70	3/72
Fairfield	Long Island Sound	30,000		3.75	Secondary	5/68 1	3/69 1	2/71 1	8/72
Bridgeport-West Side	Cedar Creek	90,000	X	24.00	Primary	9/67 1	1/69 1	1/70 1	1/72

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(Continued)

						State Implementation Schedule As of May 1, 1971			
Name	Receiving Waters	Estimated Population Served	Municipalities With Combined Sewers	Average Daily Flow (MGD)	Degree Of Treatment	Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
		Connecticut							
Bridgeport-East Side	Bridgeport Harbor	40,000	X	11.00	Primary	9/67 1	1/69 1	1/70 1	12/72
Stratford	Housatonic River	40,000		6.00	Primary	9/67 1	3/69 1	1/71 1	1/73
Shelton-Main	Housatonic River	10,000	X	1.00	Primary	3/68 1	3/70 1	9/70	6/71
Shelton-Route 8	Housatonic River			1.00	Secondary	8/67 1	4/67 1	4/67 1	11/67 1
Derby	Housatonic River	8,500	X	0.85	Primary	1/68 1	12/69	6/70	6/71
Milford (Devon)	Housatonic River				Secondary	6/67 1	7/67 1	1/68 1	5/69 1
Milford (Town Meadows)	Milford Harbor	10,000		1.15	Secondary				
Milford (Harbor Plant)	Milford Harbor	4,000		0.60	Secondary				
Milford (Gulf Pond Plant)	Gulf Pond	6,000		1.40	Secondary				
West Haven	New Haven Harbor	40,000		5.00	Primary	12/67 1	12/68 1	2/71 1	2/73
New Haven-Boulevard Plant	New Haven Harbor	76,600	X	11.30	Primary	8/69 1	12/71	6/72	12/74

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

Name	Receiving Waters	Estimated Population Served	Municipalities With Combined Sewers	Average Daily Flow (MGD)	State Implementation Schedule As of May 1, 1971				
					Degree of Treatment	Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
New Haven-East St Plant	New Haven Harbor	67,500	X	11.20	Primary	8/69 1	12/71	6/72	12/74
New Haven-East Shore Plt.	New Haven Harbor	34,900	X	6.00	Primary	8/69 1	12/71	6/72	12/74
North Haven	Quinnipac River	16,000		5.00	Secondary	3/68 1	7/68 1	3/69 1	2/70 1
East Lyme-Rocky Neck State Park	Long Island Sound			0.02	Subsurface	10/67 1	5/68 1	12/68 1	6/69 1
East Lyme-Niantic State Farm	Bride Brook			0.03	Secondary		6/68 1	2/69 1	10/69 1
East Lyme-Camp Dempsey	Niantic River			0.32	Subsurface	9/67 1	3/68 1	11/68 1	6/69
Waterford-Seaside St. San.	Long Island Sound			0.03	Secondary		4/68 1	12/68 1	8/69 1
New London-Trumbull St. Plant	Thames River	32,700		3.20	Primary	10/67 1	9/68	7/69	7/70
New London-Riverside Plant	Thames River	2,600		0.20	Primary	10/67 1	6/68	4/69	10/69
Waterford	Thames River				Individual	5/68 1	6/69	6/70	6/71
Montville	Thames River				Individual	10/67 1	12/69	7/70	11/71
Norwich	Shetucket & Thames R.	24,000	X	1.50	Primary	12/67 1	12/68 1	5/71	12/71
Yantic Interceptor		4,500				12/67 1	6/68 1	3/71 1	9/72 1
Shetucket Interceptor						12/67 1	6/68 1	6/71	11/72
La. Hill & Thames Inter.						12/67 1	11/68 1	6/69	3/70
Ledyard-Lifetime Homes	Williams Brook			0.08	Tertiary	5/68 1	2/69 1	4/69 1	5/69

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
As Submitted by the State of Connecticut

Name	Receiving Waters	Estimated Population Served	Municipalities With Combined Sewers	Average Daily Flow	State Implementation Schedule As of May 1, 1971				
					Degree of Treatment	Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
Groton City-Fort St. Plant	Thames River	10,000		1.30	Primary	10/67[1]	10/68[1]	9/69[1]	11/71
Groton City-Branford Court	Bakers Cove	800		0.03	TO BE ELIMINATED				
Groton Town-Fort Hill Homes	Mumford Cove	4,800		0.30	Secondary		7/68[1]	6/69	10/70
Interceptor						[1]	7/68[1]	5/70	9/71
Stonington-Mystic	Mystic River			0.05	Secondary	8/67[1]	7/69[1]	4/72	4/72
Stonington-Boro	Stonington Harbor			0.12	Secondary	11/67[1]	8/69[1]	1/70	1/71
Stonington-Pawcatuck	Pawcatuck River					8/67[1]	10/69	3/70	3/71

INDUSTRIAL DISCHARGES
TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
AS SUBMITTED BY THE STATE OF CONNECTICUT

NOTE: A "1" AFTER THE DATES INDICATES COMPLIANCE WITH THAT STEP OF THE IMPLEMENTATION SCHEDULE

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

					State Implementation Schedule As of May 1, 1971							
Name	Location	Number of Employees	Type of Product	Receiving Waters	Submit Preliminary Plans		Submit Final Plans		Start Construction		Complete Construction	
GAF Corporation	Greenwich	814	Felt-wool and Synthetic filters (sanitary)	Byram River	12/68	1	3/70	1	3/71	1	9/71	
New England Motors	Greenwich						3/68	1	6/68	1	12/68	1
Globe Slicing Machines Co. Inc.	Stamford	150	Food Slicers and Choppers	Stamford Harbor	9/68	1	6/69	1	6/69	1	1/72	
Machlett Laboratories Inc.	Stamford	1,600	X-ray tubes	Noroton River	3/66	1	8/68	1	9/68	1	3/69	1
Laminated Shim Co. Inc.	Stamford	250	Laminated Stampings	Stamford Harbor							7/68	1
Hoffman Fuel Co. Inc	Stamford			Stamford Harbor	1/70	1	6/70		9/70		3/71	
Cerro Copper & Brass Co.	Stamford	300	Copper & Brass Products (Sanitary)	Stamford Harbor	2/69	1	7/69	1	10/69	1	7/70 12/67	1 1
National Dairy Products Corp (Sealtest)	Stamford		Dairy Products	Stamford Harbor							7/70	1
Acme Electroplating Inc.	Stamford		Electroplating	Stamford Harbor	4/71		7/71		9/71		3/72	
Stamford Polishing & Plating	Stamford		Metal Polishing Chrome-Nickel Plating	Stamford Harbor	4/71		7/71		9/71		3/72	
Pitney Bowers	Stamford		Machinery	Stamford Harbor	6/71		11/71		2/72		2/[illegible]	
Devine Brothers	Norwalk			Norwalk River	9/68	1	1/69	1	3/69	1	[illegible]	
King Organic Chemical Co.	Norwalk	10	Rubber-Plasticizers	Norwalk River	9/69	1	8/67 3/70	1	11/67 5/70	1	2/[illegible] 12/7[illegible]	

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

Name	Location	Number of Employees	Type of Product	Receiving Waters	State Implementation Schedule As of May 1, 1971 Submit Preliminary Plans		Submit Final Plans		Start Construction		Complete Construction	
Norwalk Asphalt	Norwalk			Norwalk River	9/68	1	1/69	1	3/69	1	8/69	1
Caldor	Norwalk		(Sanitary)	Norwalk Harbor							9/71	
Fairfield Investors, Inc.	Norwalk		(Sanitary)	Norwalk Harbor							9/71	1
Rowayton Market	Norwalk		(Sanitary)	Norwalk Harbor							9/71	
Rowayton Pharmacy	Norwalk		(Sanitary)	Norwalk Harbor							9/71	
Soybel Realty Co.	Norwalk		(Sanitary)	Norwalk Harbor							9/71	
Stephanak Brothers Inc.	Norwalk		(Sanitary)	Norwalk Harbor							9/71	
Wash-A-Way Car Washers	Westport		Auto Washing	Saugatuck River	INJUNCTION NO SCHEDULE							
Fremont Div. Dynamics Corp.	Bridgeport	250	Generator Sets-(San.)	Bridgeport Harbor							6/70	1
Carpenter Steel	Bridgeport	1,000	Alloy & Stainless Steel	Bridgeport Harbor	12/68	1	4/69	1	7/69	1	4/70	
Bridgeport Brass	Bridgeport			Bridgeport Harbor	12/71	1	6/72		12/72		12/73	
Herman Isaacs, Inc.	Bridgeport			Bridgeport Harbor	9/69		2/70	1	5/70	1	12/70	1
Bullard Company	Fairfield	2,000	Machinery (Sanitary)	Bridgeport Harbor	3/68	1	12/68	1	3/69	1	12/69	1
Clark Metal Products Inc.	Fairfield	125	Small Metal Products	Black Rock Harbor	9/68	1	5/69	1	9/69		6/68 5/70	
Wakeman Memorial, Inc.	Fairfield		(Sanitary)	Black Rock Harbor							10/69	
C. O. Jelliff Mfg Co.	Fairfield	200	Woven Wire Mesh	Black Rock Harbor	12/68	1	2/71	1	5/71		3/72	

D. HARGES TO LONG ISLAND SOUND AND CERTAL. .RIBUTARIES
(As Submitted by the State of Connecticut)

					State Implementation Schedule As of May 1, 1971			
Name	Location	Number of Employees	Type of Product	Receiving Waters	Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
Electric Storage Battery Co.	Fairfield	108	Automotive Storage Batteries	Black Rock Harbor	6/68 1	2/69 1	4/69 1	4/70 1
Handy and Harmon	Fairfield	800	Precious Metals	Black Rock Harbor		3/69 1	6/69 1	3/70 1
Parker's Dairy Co.	Trumbull	15	Dairy Products	Poquonock River	9/68 1	2/69 1	5/69 1	12/69 1
Hull Dye & Print Works, Incorporated	Derby	300	Textile Dying and Finishing (Sanitary)	Housatonic River	10/68 1	3/70 1	9/70 1	6/71 6/71
The United Illuminating Company	Derby		Electricity-(Sanitary)	Housatonic River				4/70 1
W.E Bassett Co.	Derby	180	Manicure Implements (Sanitary)	Housatonic River	1/68 1	7/69 1	9/69 1	4/70 10/67 1
Apex Tool & Cutter Co.	Shelton	100	Tools, Holders and Milling Cutters (Sanitary)	Housatonic River	9/68 1	4/69 1	6/69 1	12/69 1
B. F. Goodrich Sponge Products	Shelton	2,000	Industrial Cellular Rubber (Sanitary)	Housatonic River	3/69 1	5/69 1	7/69 1	4/68 1 4/70
Chromium Process Co.	Shelton	225	Electronics (Sanitary)	Housatonic River		12/67 1	3/68 1	9/68 1 7/69
Driscoll Wire Co.	Shelton	75	Low Carbon Steel Wire (Sanitary)	Housatonic River	9/68 1	4/69 1	6/69	11/67 1 12/69
Empire State Novelty Corp.	Shelton		(Sanitary)	Housatonic River	9/68 1	4/69 1	6/69 1	4/69 [illegible] [illegible]

D HARGES TO LONG ISLAND SOUND AND CERTAL RIBUTARIES
(As Submitted by the State of Connecticut)

					State Implement tion Schedule As of May 1, 1971							
Name	Location	Number of Employees	Type of Product	Receiving Waters	Submit Preliminary Plans		Submit Final Plans		Start Construction		Complete Construction	
Axton Cross	Shelton		Mechanical Shop	Housatonic River								1
Shelton Tubular Rivet	Shelton		Screw Machine Products	Housatonic River	9/68		9/69		6/69		12/69	1
H. K. Porter Co	Shelton			Housatonic River							1/69	1
Star Pin	Shelton		Common, Safety Pins	Housatonic River							4/68	1
Star Pin Co.	Shelton	160	Hairpins	Housatonic River			9/68	1	1/69	1	7/71	
Wire Novelty Company	Shelton	190	Wire & Metal Specialities	Housatonic River	9/68	1	4/69	1	6/69	1	12/69	1
			(Sanitary)								4/68	1
Scotch Wash	Shelton			Farmill River	8/69	1	11/69	1	3/70	1	6/70	1
East Village Land Co	Shelton			Farmill River	8/69	1	11/69	1	3/70	1	6/70	1
Chemical Plating Co.	Stratford	55	Electroplating	Bridgeport Harbor	4/69	1	12/69	1	10/70		7/71	
Contract Plating Co.	Stratford	130	Metal Finishes	Housatonic River	8/68	1	1/69	1	4/69	1	8/70	1
Ross & Roberts	Stratford	250	Vinyl & Polyethylene Film and Sheeting	Housatonic River	12/68	1	5/69	1	8/69	1	6/70	1
Raybestos-Manhattan, Inc.	Stratford	1,250	Asbestos & Metallic Brake Linings	Housatonic River	1/69	1	5/69	1	8/69	1	12/69	1
Tilo Co. Inc.	Stratford	1,500	Asphalt & Asbestos	Housatonic River	7/68	1	12/68	1	4/69	1	1/70	1
Bridgeport Rolling Mills	Stratford	130	Aluminum, Brass & Bronze	Bridgeport Harbor	8/68	1	6/71		7/71		1/72	
Chatham Associates	Stratford		(Sanitary)	Housatonic River							4/71	

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

Names	Location	Number of Employees	Type of Product	Receiving Waters	State Implementation Schedule As of May 1, 1971 Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
Sikorsky Aircraft	Stratford	9,832	Helicopters-(Sanitary)	Housatonic River				1/73
Branch Motor Express Co.	Orange			Milford Harbor	6/68 1	12/68 1	3/69 1	9/69 1
National Screw Products Co. Inc.	Orange			Milford Harbor				6/68 1
Adley Express Corp.	Orange			Milford Harbor	6/70	6/70	9/70	3/71
Syndicated Realty	Orange	50		Milford Harbor	6/68 1	1/69 1	3/69 1	12/69 1
Huyck Corp.	Milford	50	Paper Making Machinery	Milford Harbor	1/68 1	4/68 1	7/68 1	12/68 1
Milford Rivet & Machine Company	Milford	475	Tubular Rivets	Milford Harbor	11/67 1	2/68 1	4/68 1	10/68 1
Robertshaw Control Co.	Milford	493	Metallic Bellows & Bellows Assemblies	Milford Harbor	3/68 1	10/68 1	1/69 1	12/69 1
U. S. Electronic Motors Div. Emerson Electric Mfg. Co.	Milford	1,025	Electric Motors	Milford Harbor	10/68 1	8/70 1	11/70 1	8/71
Waterbury Lock & Specialty Company	Milford	300	Locks, Cigarette Lighters	Milford Harbor	4/68 1	7/68 1	9/68 1	3/69 1
Mayflower Truck Shop	Milford		Sanitary			5/71	7/71	9/71
Mayflower Diner	Milford		Sanitary					5/71
Avco	Stratford		Aircraft Parts		7/71	12/71	2/72	10/72

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

Names	Location	Number of Employees	Type of Product	Receiving Waters	State Implementation Schedule As of May 1, 1971 Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
Secondi Brothers Service Station	Milford			Milford Harbor	1/70[1]	2/70[1]	5/70[1]	12/70
The Rex Company	Milford			Milford Harbor	5/70	7/70	9/70	12/70
Eldorado Trans. Co.	Milford			Milford Harbor			9/70[1]	12/70[1]
Volvo City	Milford		Auto Dealer	Milford Harbor	INJUNCTION NO SCHEDULE			
American Powered Metals	North Haven	200	Powdered Metal Parts	Quinnipiac River	10/68[1]	2/69[1]	5/69[1]	12/69[1]
Burndy Corp.	North Haven	200	Electrical Connectors	Quinnipiac River		1/69[1]	4/69[1]	12/69
City Printing Co.	North Haven	75	Printing & Lithography	New Haven Harbor		12/67[1]	3/68[1]	6/68[1]
Humphrey Chemicals	North Haven	25	Organic Chemicals	Quinnipiac River	1/68[1]	10/69	12/69	6/70
Platt & Labonia Co.	North Haven	60	Sheet Metal Fabricators	Quinnipiac River		1/69	4/69	12/69
Axton-Cross Co.	North Haven	60	Industrial Chemicals	Quinnipiac River	PERMIT NO SCHEDULE			
Pratt & Whitney Aircraft (United Aircraft)	North Haven	2,500	Aircraft & Marine Engines	Quinnipiac River	11/68[1]	11/70[1]	10/70[1]	1/72
Union Carbide, Linde Air Products Co. Inc.	North Haven	15	Compressed Gases	Quinnipiac River	8/68[1]	12/68[1]	3/69[1]	9/69[1]
O. F. Mossberg & Sons	North Haven	300	Firearms	Quinnipiac River	6/69[1]	11/69[1]	1/70[1]	6/70[1]
Upjohn Co, Carwin Organic Chemicals	North Haven	200	Synthetic Organic Chemicals	Quinnipiac River	6/70	9/70	4/71	10/71

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

					State Implementation Schedule As of May 1, 1971							
Names	Location	Number of Employees	Type of Product	Receiving Waters	Submit Preliminary Plans		Submit Final Plans		Start Construction		Complete Construction	
Upjohn Co. Carwin Organic Chemicals	North Haven	200	Synthetic Organic	Quinnipiac River	2/68	1	5/68	1	7/68	1	2/69	1
Vincent Buonocore & Sons	North Haven	45	Wines	Quinnipiac River	9/69	1	3/70	1	5/70	1	12/70	
Drabdin Family Spray Trust	North Haven			Quinnipiac River	3/71		6/71		8/71		3/72	
Circuit-Wise, Inc.	North Haven	26	Printed Circuit Boards	Quinnipiac River	3/71		6/71		8/71		3/72	
C. W. Blakeslee & Sons	New Haven		General Contracting	New Haven Harbor	3/68	1	6/68	1	8/68	1	12/68	1
Federal Paper Board Co.	New Haven	750	Folding Boxboard	Mill River	8/68		4/69		10/69		10/70	
North Haven Laundramat	North Haven		Lanudry									1
Empire Car Wash	North Haven										7/69	1
Humble Oil	New Haven			New Haven Harbor	11/68	1	3/69	1	6/69	1	12/69	1
Mite Corp.	New Haven	300	Electrical Equipment	West River	4/69	1	8/69		11/69		5/70	
New Haven Board & Carton	New Haven	500	Folding Boxboard	Mill River	8/68	1	4/69	1	10/69		10/70	
Seemless Rubber Co. Div. Rexall Drug & Chemical Co.	New Haven	900	Rubber Sundries	New Haven Harbor	6/71	1	8/71		9/71		12/71	
U. S. Steel, American Steel & Wire Division	New Haven	300	Hot Rolled & Cold Finished Bars	Quinnipiac River	8/68	1	12/69	1	3/70	1	4/71	1
New Haven Malleable Iron Company	New Haven		Sanitary	New Haven Harbor							7/69	
Textron Electronics	New Haven			New Haven Harbor	5/69	1	10/69 -		2/70		12/70	

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

Names	Location	Number of Employees	Type of Product	Receiving Waters	State Implementation Schedule As of May 1, 1971 Submit Preliminary Plans		Submit Final Plans		Start Construction		Complete Construction	
Penn Central Co. Union St.	New Haven			New Haven Harbor			5/70	1	10/70		10/71	
Penn Central Co. Cedar Hall	New Haven			Quinnipiac River	3/70	1	5/70	1	10/70		10/71	
Himmel Brothers	Hamden	70	Metal Moldings	Quinnipiac River	6/68	1	1/69	1	3/69	1	2/70	1
Giering Metal Finishing Inc.	Hamden	50	Metal Finishing	Quinnipiac River	7/68	1	2/69	1	4/69	1	3/70	1
South Conn. Gas Co.	New Haven		(Sanitary)	New Haven Harbor							11/72	
The United Illuminating Co.	New Haven		Electricity-(Sanitary)	Mill River							11/72	
Corenco Corp.	West Haven	675	Tallow & Grease Hides	New Haven Harbor	9/69	1	3/70	1	5/70	1	12/70	1
Car Washers, Inc.	West Haven		Auto Washing	New Haven Harbor	2/70		2/70		5/70		10/70	
American Buckle Co.	West Haven	20	Clothing Buckles	New Haven Harbor	12/69	1	2/70	1	6/70	1	12/70	1
Armstrong Rubber Co.	West Haven	1,471	Tires & Tubes	New Haven Harbor	1/71	1	6/71		9/71		4/72	
Arcola Wire Co.	Branford	11	Round Aluminum Wire	Branford Harbor	8/68	1	3/69	1	7/69		3/70	
D. J. King	Branford			Branford Harbor	8/68	1	1/69	1	3/69	1	9/69	
National Gypsum	New Haven				11/68	1	3/69	1	6/69	1	12/69	1
Carroll Johnson	Branford		(Sanitary)	Branford Harbor LIS			4/68		6/68		8/68	
Mr. & Mrs. George Hugret	Branford		(Sanitary)	Branford Harbor LIS			4/68		6/68		8/68	
Brandon Company	Branford		(Sanitary)	Branford Harbor							12/68	1
Echlin Mfg. Co.	Branford	550	Automobile Parts	Branford River	6/69	1	11/69	1	4/70	1	9/70	1

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

State Implementation Schedule
As of May 1, 1971

Names	Location	Number of Employees	Type of Product	Receiving Waters	Submit Preliminary Plans		Submit Final Plans		Start Construction		Complete Construction	
Atlantic Wire Co.	Branford	250	Iron & Steel Wire	Branford Harbor	11/68	1	7/69	1	9/69	1	4/70	
Summit House Restaruant	Branford		(Sanitary)	Branford Stream							12/68	1
Malleable Iron Fittings Co.	Branford	622	Metal Fabricating	Branford Harbor	12/69	1	3/70		6/70		10/70	
Olin Corporation	Branford			Branford River	PERMIT						1/70	1
Maple Shade Farm, Inc.	Guilford	100	Dairy Products	Stream			9/67	1	10/67		4/68	
Waverly Chemical Co. Inc.	Guilford	5	Magnesium	Guilford Harbor LIS	12/68	1	12/68	1	4/70		6/70	
Madison Laundermat	Madison			Stream			2/68	1	4/68	1	7/68	1
Chesebrough-Ponds, Inc.	Clinton	1,450	Phamaceuticals	Clinton Harbor	5/68	1	11/68		2/70		10/70	
Universal Wire of Bostitch Division of Textron, Inc.	Clinton	100	Wire Drawings	Clinton Harbor	5/69	1	2/70	1	7/70	1	4/71	1
Saybrook Laundry	Old Saybrook		Laundry	L.I.S.	9/67	1	3/68	1		1		1
Barbara Johnson	Westbrook			L.I.S.	5/68	1	7/68	1	9/68	1		1
Mrs. Russell Arnts	Westbrook			L.I.S.	2/69	1	6/69	1	7/69	1		1
August & Olin Neidlinger	Westbrook			L.I.S.	5/68	1	7/68	1	9/68	1		1
Frank Rullyetal	Westbrook			L.I.S.	10/68	1	12/68	1	4/69			
Verplex Company	Essex	200	Lampshades	Connecticut River	6/68	1	9/68	1	11/68	1	3/69	1
Chas. Pfizer & Co., Inc.	Groton	2,000	Pharmaceuticals	Thames River	12/67	1	5/68	1	9/70	1	12/71	

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

Names	Location	Number of Employees	Type of Product	Receiving Waters	State Implementation Schedule As of May 1, 1971 Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
General Dynamic Corp. Electric Boat Div.	Groton	18,000	Ships (Sanitary)	Birch Plain		6/69 1	8/69 1	11/69 1
Compass, Inc.	Groton	5	Newspaper-(Sanitary)	Mystic River	SEWER CONNECTION			11/70
Fusconi Cleaners & Tailors	Groton			Thames River	SEWER CONNECTION			9/71
Campenelli Corp.	Ledyard			Thames River		8/68 1	10/68 1	4/69 1
Continental Can Co.	Montville	174	Paperboard (Sanitary)	Thames River	2/69 1 4/68 1	10/69 1 6/68 1	4/70 1 9/68 1	4/71 1 12/68 1
Federal Paper Board Co.	Montville	100	Folding Boxboards	Oxoboxo Brook	2/69 1	10/69 1	4/70 1	4/71 1
Robertson Paper Bos Co.	Montville	400	Folding Boxboards	Oxoboxo Brook	2/69 1	10/69	4/70	4/71
Thomas G. Faria Corp.	Montville	130	Automotive & Marine Instruments (Sanitary)	Oxoboxo Brook	SEWER CONNECTION			12/71
Finley Screw Machine Prod.	Montville	5	Screw Machine Prod.	Oxoboxo Brook	SEWER CONNECTION			12/71
Conn. Light & Power Co.	Montville		Power	Thames River	PERMIT			
American Velvet Co. (A. Wimpfheimer & Brothers Inc.)	Stonington	350	Velvet & Plushes (Sanitary)	Stonington Harbor	SEWER CONNECTION			12/70 12/70
Monsanto Company	Stonington	100	Plastic Bottles (Sanitary)	Stonington Harbor	SEWER CONNECTION			12/70 12/70
Douglas Randall, Inc. (Subsid. of Walter Kidde & Co., Inc.)	Stonington	250	Electronic Equipment	Pawcatuck River	SEWER CONNECTION			12/70

DISCHARGES TO LONG ISLAND SOUND AND CERTAIN TRIBUTARIES
(As Submitted by the State of Connecticut)

Names	Location	Number of Employees	Type of Product	Receiving Waters	State Implementation Schedule As of May 1, 1971 Submit Preliminary Plans	Submit Final Plans	Start Construction	Complete Construction
Carole Realty	Stonington		Sanitary	Pawcatuck River	SEWER CONNECTION			12/70
Micro Leather	Stonington		Leather Products (Sanitary)	Pawcatuck River	SEWER CONNECTION			12/70
Aaron I[illegible]ine	Stonington		Sanitary	Pawcatuck River	SEWER CONNECTION			12/70
Russell A. Liniham	Stonington		Sanitary	Pawcatuck River	SEWER CONNECTION			12/70
Cooper Laboratories (The Packer Co. Div.)	Stonington	20	Soaps & Shampoos (Sanitary)	Mystic River	SEWER CONNECTION			5/72 5/72
Puritan Laundry	Stonington	15	Laundry	Pawcatuck River	SEWER CONNECTION			12/70
Sirtex Printing Co.	Stonington	20	Textile Printing (Sanitary)	Mystic River	3/68	8/68	11/68	5/72
General Dynamics Corp.	Stonington	18,000	Warehouse	Stonington Harbor	SEWER CONNECTION	3/68	6/68	5/72 12/70
Yardney Electric Co.	Stonington		Electronic Equipment	Pawcatuck River	SEWER CONNECTION			12/70
Yardney Electric Co.	Stonington		Electronic Equipment	Pawcatuck River	SEWER CONNECTION			12/70
Cotrell Co.	Stonington			Pawcatuck River	SEWER CONNECTION			12/70
A. Wimptimer & Son	Stonington				SEWER CONNECTION			12/70
J. & J. Machine C.	Stonington		Machinery		SEWER CONNECTION			12/70
Conn. Investment Casting	Stonington		Primary Metals			1/68 1	4/68 1	8/68 1

New York State Department of Environmental Conservation
901 North Broadway, White Plains, N.Y. 10603

Henry L. Diamond
Commissioner

June 16, 1971

Mr. William Librizzi
Environmental Protection Agency
U.S. Department of the Interior
Edison, New Jersey 08817

Dear Mr. Librizzi:

Enclosed please find proposed dates for advanced waste treatment facilities for those plants and industries discharging to Long Island Sound in the New York area.

These dates are the present most realistic dates for the completion of these facilities. If some of these dates do not meet present orders for these communities, they will be presented to our Enforcement Section for any action they may wish to take in this matter.

Very truly yours,

John E. Harrison

John E. Harrison, P.E.
Regional Director of Environmental
Quality, White Plains Region

JEH/sb
cc: Mr. Garvey - Enforcement Section
Mr. Seebald - Division of Pure Waters

STATUS LONG ISLAND SOUND ENFORCEMENT

SUFFOLK COUNTY

Greenport (V)
Engineering Report - Approved 5/15/70
Final Plans - Approved 3/31/71
Start Construction 7/1/71
End Construction 7/1/72

Port Jefferson S.D.		Phase I	Phase II
	Engineering Report	5/15/71	7/1/71
	Final Plans	9/15/71	4/1/72
	Start Construction	3/3/72	10/1/72
	End Construction	10/1/72	10/1/73

Kings Park State Hospital - Plans for alteration of facilities to handle scavenger wastes are being drawn up. Transfer of facility to the Town of Smithtown is almost complete.

Northport
Start Construction 4/1/71
End Construction 4/1/72

Huntington S.D. - No expansion planned.

NASSAU COUNTY

Oyster Bay Sewer District - This facility is not being expanded at this time.

Glen Cove - Morgan Estates
Authority to Advertise 7/1/71
Construction to Start 9/15/71
Construction to End 3/15/71

Glen Cove (C)		Phase I	Phase II
	Engineering Report	7/1/71	7/1/71
	Final Plans	10/15/71	1/1/72
	Start Construction	3/15/72	6/1/72
	End Construction	10/1/72	6/1/73

Port Washington Sewer District
Engineering Report 3/12/71
Final Plans 8/1/71
Start Construction 3/1/72
End Construction 8/1/73

Great Neck Sewer District
Engineering Report - Approved 7/22/70
Final Plans 7/1/71
Start Construction 2/1/72
End Construction 2/1/73

Long Island Lighting Company

1. Port Jefferson Plant - Domestic waste are discharged to municipal sewer system. Cooling waters is discharged to Port Jefferson Harbor.

2. Northport - Domestic wastes are discharged to a septic tank-tile field system. Cooling waters are discharged to Long Island Sound after going through a cooling basin.

3. Glenwood Landing - Domestic wastes are discharged to Hempstead Harbor after treatment in a septic tank followed by chlorination. Cooling water is discharged to Hempstead Harbor.

Roslyn (V) - No expansion

Great Neck (V) - No expansion

Belgrave S.D. Engineering Plans - Approved
Final Plans - Approved
Start Construction 10/1/71
End Construction 10/1/72

WESTCHESTER COUNTY

Blind Brook S.T.P. Engineering Report 5/1/70
Final Plans 9/1/71
Bids 1/1/72
Start Construction 4/1/72
End Construction 2/1/74

New Rochelle Final Plans 8/1/71
Bids 12/1/71
Start Construction 3/1/72
End Construction 3/1/75

Port Chester Treatment Plant & Force Mains
Final Plans 9/1/71
Bids 1/1/72
Start Construction 3/31/72
End Construction 2/1/74

Mamaroneck January 1, 1973 - Start of study and preparation of Wastewater Facilities Report to be completed by the end of that year.

January 1, 1974 - Start of design of treatment works.

January 1, 1975 - Taking of bids and subsequent award of contracts for construction of sewage treatment works.

August 1, 1976 - Start of operation of new secondary treatment process.

Shenrock Shore Club, American Yacht Club, Rye, New York & Shell Metropolitan Oil Co. - These companies will be secondary treatment by June 1, 1972.

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lew York State Department of Environmental Conservation
lbany, N. Y. 12201

Henry L. Diamond
Commissioner

June 23, 1971

Mr. William Librizzi
Chief, Enforcement Section
U.S. Environmental Protection Agency
Edison, New Jersey 08817

Re: LONG ISLAND ENFORCEMENT CONFERENCE
NEW YORK CITY DISCHARGES

Dear Mr. Librizzi:

Please be advised that the Orchard Beach City Island and Harts Island discharges have been integrated into the New York City Hunts Point sewage treatment plant service area and as such will follow the Hunts Point time schedule recently agreed to with New York City officials. Specifically, this covers extension and improvements to the Hunts Point plant including the Harts Island-City Island pump station and force main and the Orchard Beach force main.

Final plans and specifications have been submitted to the Department and according to the time schedule, construction contracts will be awarded during the 1st quarter of 1972 with construction scheduled to be completed during the 1st quarter of 1975.

Mr. Harrison, in a letter to you dated June 16, 1971, is conveying all of the other schedules for the municipalities and industries in New York discharging to Long Island Sound.

Very truly yours,

William L Garvey

William L. Garvey, P.E.
Chief, Enforcement Section
Division of Pure Waters

* U.S. GOVERNMENT PRINTING OFFICE: 1971-440-786/247